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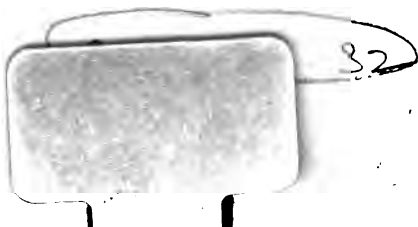
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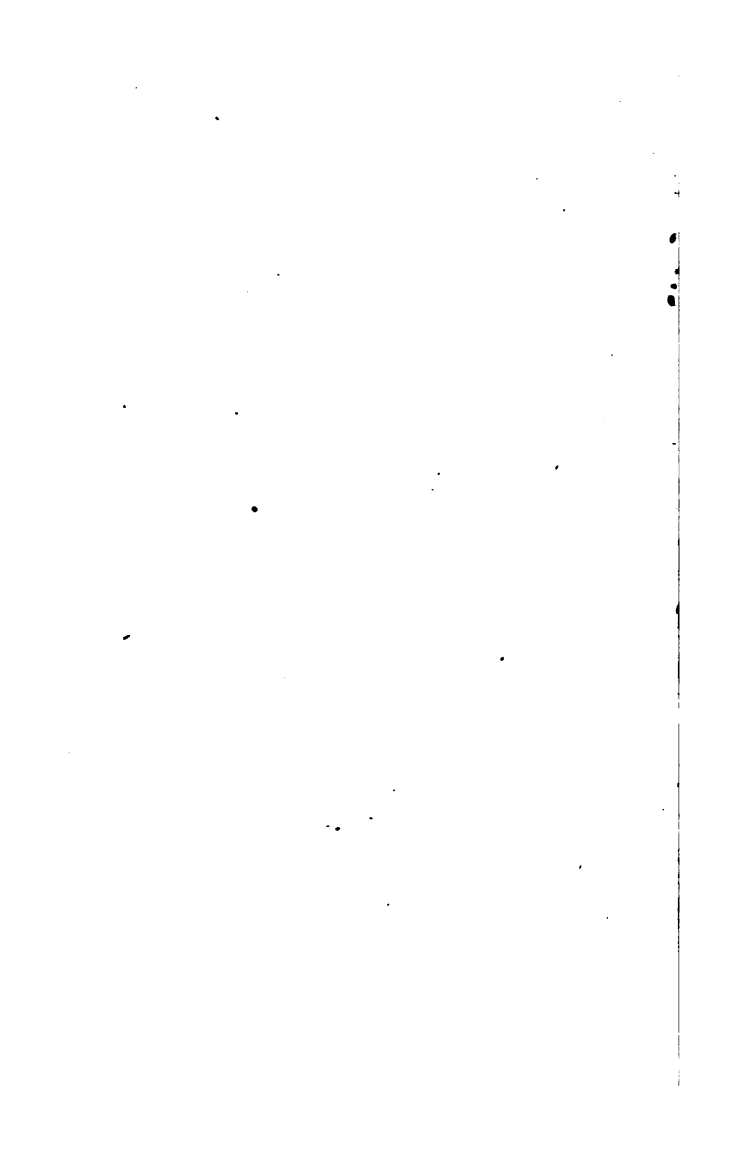


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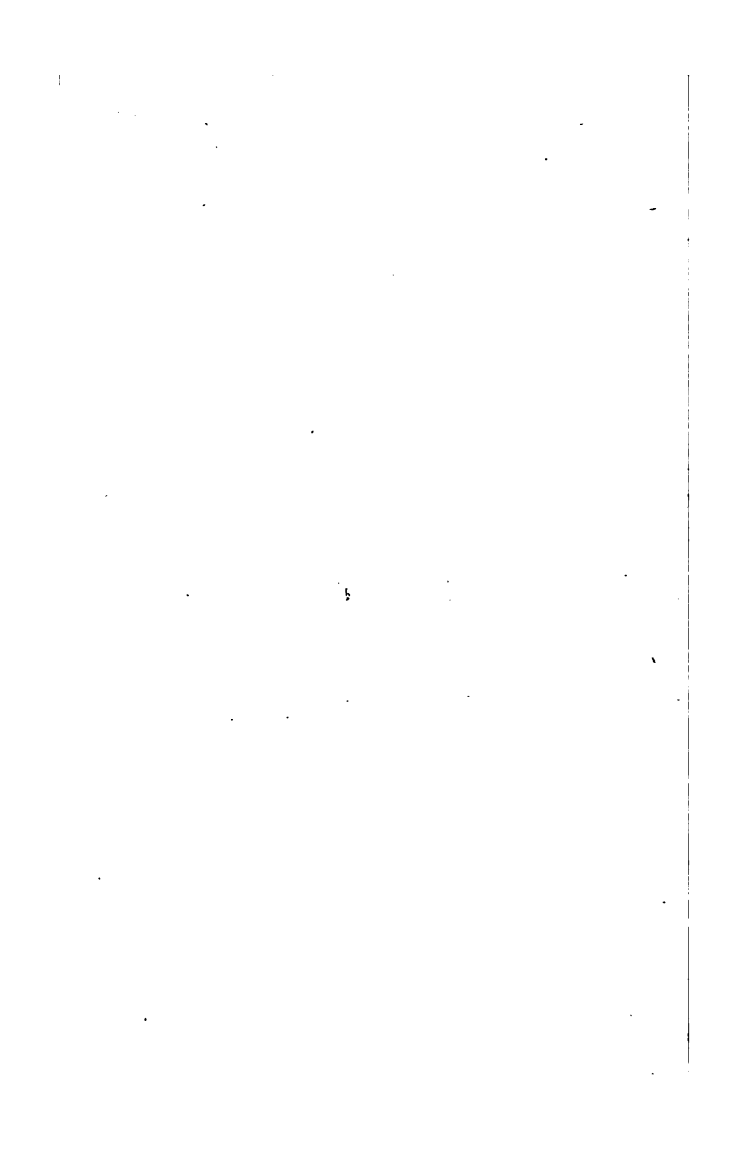
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NARRATIVE
OF THE SECOND
VOYAGE OF CAPTAIN ROSS.



NARRATIVE
OF THE SECOND
VOYAGE OF CAPTAIN ROSS
TO THE
Arctic Regions.
IN THE YEARS 1829-30-31-32-33.

COMPILED PRINCIPALLY

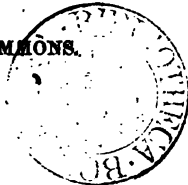
**FROM THE EVIDENCE OF CAPTAIN ROSS, AND HIS NEPHEW,
COMMANDER ROSS, BEFORE THE COMMITTEE OF**

THE HOUSE OF COMMONS.

LONDON:
HENRY RENSHAW, 356, STRAND.

1834.

297.



LONDON:
PRINTED BY BRADBURY AND EVANS, WHITEFRIARS.

PREFACE.

THE following pages do not pretend to contain more than a faithful epitome of the evidence given before the Select Committee of the House of Commons, appointed to inquire into the circumstances of the expedition to the Arctic Seas, commanded by Captain Ross. The Committee was appointed on the 18th of March last, and after hearing the testimony of Captain Ross himself; Commander Ross, his nephew; Felix Booth, Esq., the gentleman to whose truly national spirit we owe the expedition; Lord de Saumarez; Captain Francis Beaufort, Hydrographer to the Admiralty; Mr. Children, F.R.S., and

E. S. Cayley, M.P., obtained leave, on the 28th of April, to report their observations to the house, together with the Minutes of Evidence taken before them.

It is from the Minutes of Evidence thus printed, that the following sketch has been prepared. Public curiosity has been very strongly excited to learn the result of this expedition, peculiar circumstances attending it having given it additional interest. It is with the view of gratifying to some extent so reasonable a feeling, that this volume has been undertaken; not with any intention,—which indeed could not, even did it exist, be of avail,—of forestalling the more elaborate work which, it is understood, is at present in progress of preparation for the press, under the superintendence of Captain Ross himself.

If either the compiler or publisher of this volume for a moment anticipated

that such would be the result of their labours, they would never have been undertaken; but this unpretending volume is presented as a preparatory whet to the more substantial banquet which, we doubt not, awaits the public in the forthcoming volumes of Captain Ross.

We have arranged all the information which could be extracted from the report of the House of Commons' Committee, adhering as much as possible to the language of the witnesses themselves. Our object, we repeat, has not been to anticipate the publication of the authentic account of the expedition, which may be expected from its enterprising commander; in order to enable whom to bring out his book in as complete a manner as possible, the Admiralty have allowed his nephew leave of absence, that he may assist him in its compilation and arrangement. This, from the

peculiar circumstances attending both the discovery of the magnetic pole, and the various expeditions on which he proceeded alone to explore portions of the newly discovered territory, he possesses greater means of accomplishing even than his uncle.

The compiler of this sketch (it does not purport to be more) does not anticipate any objections to the subject of his labours, or the manner in which he has treated it. Parliamentary documents, from one of which it has been to nearly its whole extent derived, are public property; as such, he has considered and dealt with the Report of the Committee of the House of Commons.

The importance of the inquiry as to the possibility of discovering a practicable north-west passage from the Eastern to the Western Ocean, is too well understood to require any state-

ment in its favour. The subject has occupied the attention of this country for upwards of two centuries, and seems at present, with all the lights which recent expeditions have thrown on it, almost as far removed from solution as ever; not that the voyages of Parry, Franklin, and Ross, have not given negative testimony of a very strong kind against its existence. On this point it will be seen that some difference of opinion exists between Captain and Commander Ross; and it must be confessed that the latter officer, from the great advantages of experience which he possesses, derived from the fact that he has accompanied every one of the recent voyages of discovery to the Arctic Regions, brings to his views a greater *à priori* foundation; but still his uncle states, as unquestionably proved by the labours of the last expedition, that no such passage as that so long sought for

exists, at least south of the seventy-first degree of latitude. Another most important result from the voyage, is the discovery of the locality of the magnetic pole, which was determined by a series of observations and experiments, as far as we can judge, of the most conclusive kind.

We have been indebted for a small portion of our information to other sources than the Parliamentary Report ; and have, in all instances, we believe, acknowledged them.

M.

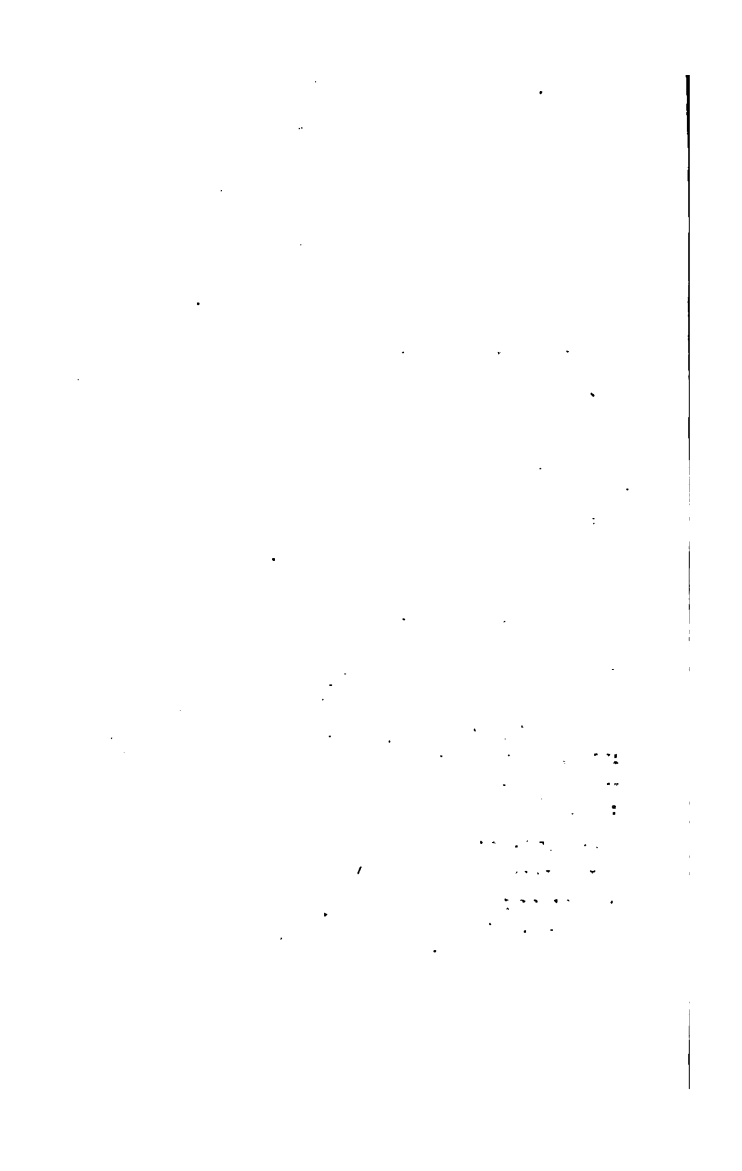
June, 1834.

THE House of Commons' Committee
consisted of the following gentlemen :—

Mr. Cutlar Fergusson
Sir Robert Peel
Sir Robert Inglis
Sir James Graham
Mr. Hutt
Mr. Aglionby
Mr. Chapman
Sir Henry Hardinge
Sir Edward Codrington
Mr. W. Gladstone
Mr. Ewart
Mr. Bannerman
Sir Andrew Agnew

Mr. Edward Stewart
Mr. G. Robinson
Mr. Warburton
Lord Dudley Stuart
Mr. Stuart Mackenzie
Mr. Fox Talbot
Mr. Brotherton
Mr. Emerson Tennant
Mr. G. F. Young
Mr. Hughes Hughes
Lord Viscount Sandon
Mr. Labouchere
Mr. O'Connell.

Of whom five were constituted a Quorum.



EXPEDITION
TO THE
ARCTIC SEAS.

BEFORE we commence the narrative of the circumstances attending the last voyage of Captain Ross, a slight notice of the naval career of that gentleman, in which we shall pursue as closely as possible his own modest account and in his own words, as delivered in his evidence before the House of Commons' Committee, will, we doubt not, be read with interest, and serve as a useful preliminary introduction to the story of the voyage itself. In this account, which we have thrown together as if told by a third person, we have varied very little from the language of the gallant and enterprising officer himself.

Captain John Ross entered the royal

navy so long ago as the year 1786, nearly half a century since, at a time when he was of tender age, being only about ten years old. He continued in the service for four years, during which period he served on board two ships, the Pearl and the Impregnable; he then left the royal navy for the merchant service, in which he remained until 1794, after which he was in the East India Company's employment until 1799; he then returned to the royal navy, and served in the expedition to the Texel in that year. His next appointment was as acting lieutenant of the Weasel, from which he went into the Clyde. He then served under Lord de Saumarez, but although often acting lieutenant, ranked only as a midshipman. He was under the orders of Lord de Saumarez from the year 1802 to the year 1812, and according to the testimony of that noble and gallant officer, "always acquitted himself highly to his satisfaction;" having been frequently engaged in services of an arduous nature during the period of ten years mentioned.

“ In the Baltic,” says Lord de Saumarez (and such praise is the highest reward a naval officer could merit or receive—*laudari a laudato viro*), “ he was frequently engaged in active services ; I had such high confidence in him, that when I took the Swedish fleet under my orders, I sent him on board the admiral’s ship to interpret the British signals and evolutions that took place, and he acquitted himself very highly to my satisfaction ; on every occasion that presented itself he acquitted himself with the utmost zeal and merit.”

Captain Ross commanded several vessels during the period he was under the orders of Lord de Saumarez, and was confirmed a lieutenant in 1805 ; after this he was first lieutenant of the Surinam and Penelope ; he subsequently held the same appointment on board the Diomedé, and was Lord de Saumarez’s first lieutenant in the Victory. His gallant superior gave him his next promotion as commander in 1809, and afterwards intrusted to him the command of his majesty’s ship Ariel. The

scientific skill of Commander Ross was so highly appreciated by the Swedish government, that the Swedish king conferred upon him the Order of the Sword. As a navigator in the Gulf of Finland, where he was employed during one whole summer, he became very well acquainted with the coast, and in every part of the Baltic (we are again adopting the words of Lord de Saumarez) he displayed very great zeal and activity in making himself acquainted with the navigation of those seas.

The last question put by the committee to the noble and gallant lord, is as follows :

“ 399. Does not your lordship consider that his expedition has been of great advantage to the navigation of the Arctic Seas ? ”

“ I should deem it to be of very great importance,” is the reply.

The event, however, which first directed the attention of Captain Ross to those regions in the Arctic Sea, which are the subject of our present volume, was his appointment, in 1817, to the command of the

expedition then fitted out to the Arctic Regions on a voyage of discovery, from which he returned in 1818. For his efficient discharge of the duties which devolved upon him during this expedition, he was promoted in December of that year to the rank of post captain.

In addition to this brief narrative of the previous services of Captain Ross, we have only to add, that he was employed in surveying the White Sea, and determined the longitude of Bear or Cherry Island; that he was several times engaged in boat actions, and destroyed a gun brig in the bay of Dilutte. He was wounded in thirteen different places, had both his legs broken, received a bayonet through the body, and five sabre cuts in his head, for which he now enjoys a well-merited pension of a hundred and fifty pounds a year.

It will be seen at once from this statement, that all the qualities essential for the successful issue of a voyage of discovery to such a climate and country as the scene of his labours in the northern regions, are pos-

essed by the subject of our memoir in a very high degree.

In the former expedition of 1818, Captain Ross's track, as exhibited in the map published by order of the House of Commons, and accompanying its report, was through Davis's Straits, a little to the west of Cape Desolation on the coast of Greenland: his course thence continued northward, with very little deviation from a straight line by Baal's river to Cape Chidley, and by Discovery Island; thence, skirting along the coast of Greenland by Buchan Island and Prince Regent's Bay, to very nearly as far north as Sir Thomas Smith's Sound—the most northern point he gained being between latitude 77° and 78° , a small group of islands a little south of Sir Thomas Smith's Sound. His way was then across the northwest point of Baffin's Bay to James's Sound. Thence he directed his course south to the entrance of Lancaster Sound, by which subsequently, in 1822, Captain Parry penetrated as far as Melville Island. The rest of the voyage was by the

western coast of Baffin's Bay and Davis's Straits. The only two voyages in which a higher degree of north latitude was obtained than during that of 1818, was by Captain Buchan, in the same year, who penetrated as far as latitude 80° , a little north-west of Spitzbergen ; and that of Captain Parry, in 1827, who proceeded nearly two degrees farther north in the same region, and very nearly in the same part of it, as laid down in the most authentic maps.

Captain Ross, like a true seaman, was nothing daunted by the result of his first expedition, and of those subsequently made up to the period when he was enabled to accomplish his object. To use his own words, he considered that the government had abandoned the project at the very time when they ought to have proceeded with it ; and that they had also taken, in his opinion, the wrong way of doing it, by employing in the former attempts at the wished-for discovery, vessels that were not at all fit for the service. He, therefore, full of these rational impressions, resulting from the

former experience he had obtained, made a proposal to our government in 1827, to effect the objects he and they in common had in view. This proposal was, that the voyage should be undertaken in a steam-vessel ; and as a proof of the earnestness with which he embraced this new view, he applied himself for a considerable time to the study of the question of steam navigation generally ; with the view also of furthering his object, he wrote a treatise on the subject. The government views however did not coincide with those he entertained, and they declined acceding to his proposals.

With a praiseworthy perseverance, indicating the sense he entertained of the soundness of his own views, he made a second application to the Admiralty at the time when his present Majesty received from Mr. Canning's administration the appointment of Lord High Admiral. It is said the Royal Duke was inclined to encourage the project, but his council advised otherwise, and the same want of success marked the application. A third time Captain Ross

applied to the same quarter after the re-appointment of Viscount Melville to the post of Chief Lord of the Admiralty, and a third time he was unsuccessful; the board, on this occasion, declaring that as a government measure it was altogether useless to urge it any more, as it must in that light at least be considered abandoned. About this time, it was rumoured and believed that the Americans had resolved on taking up the expedition themselves, with the view of working out the problem still left unsolved of a north-west passage. The impression on Captain Ross's mind when this rumour met his ears may be learned from his own words. "I thought," says he, "that this country should be the people to discover the passage, if there was any, or to decide the question." The Americans, however, abandoned the preparations which had beyond doubt been commenced for the purpose. Their plan, if they had fitted out the intended expedition, was to proceed by Behring's Straits, beyond the track of Captain Beechey in 1825 and 1828.

Defeated thus in all his attempts to obtain aid from the government, Captain Ross had recourse to his private friends. The first to whom he applied was Felix Booth, esq., to whom, although, in the first instance, from a most praiseworthy motive, to be explained presently, he declined taking part in the preparations for the voyage, the public is mainly if not wholly indebted that it was at all undertaken. We cannot, in justice to this high-spirited gentleman, forbear from quoting the following passage of the report of the House of Commons' Committee, in reference to his highly disinterested conduct.

“To Mr. Felix Booth, to whose modest public spirit and rare munificence this expedition is entirely due, your Committee regret that they have it not in their power to propose some fit token of acknowledgment; but they cannot forbear offering the tribute of their admiration and respect.”

Disappointed in the first instance in the result of his application to Mr. Booth, Captain Ross went to another friend, Mr.

Thornton, of Old Swan, a gentleman who is well known as a speculative man. He told him in the first instance that the affair was to be kept a secret, as it was proper that, being a king's officer, he should be himself the first person to make it known to the Admiralty. Nothing, however, beyond a series of conversations on the subject resulted from the application to Mr. Thornton. In the meanwhile, an event occurred which removed all the objections entertained by Mr. Booth to having any share in the expedition,—a bill was brought into Parliament, which virtually did away with the reward, by doing away with the board of longitude.

Mr. Booth's objection, in the first instance, was that there had been offered a reward of 20,000*l.* for the discovery of the north-west passage; and he felt that many persons, ignorant of the real causes which prompted him, would have attributed his coming forward to motives of private speculation. He had been acquainted with Captain Ross for some time previously, and—but it is better

we should give the explanation of his motives &c., in his own simple language.

“I had known Captain Ross,” is his reply to question 448, “for some years, and I undertook the charge of the enterprise which he commanded, for the credit of the country, and to serve Captain Ross, thinking that he had been slighted in the former expedition, and on account of ill-natured reports which were circulated anonymously against him. I conceived that there was a cloud hung over him, and he was anxious to have the opportunity of going out again. The first time he applied to me we were looking over the globe, and he was explaining to me what he had done before; I felt interested that all discoveries should be made by our countrymen; and I really was then excited and was sorry that another expedition was not appointed to go out to explore the northern regions. He said he should like very much to have the opportunity of going out again, but that government would not send out another expedition. I said I regretted very much, if that was the

case ; but did he know it for a certainty ? and he said, Not exactly, but I will endeavour to ascertain. He then, I believe, had some private communication with Lord Melville, whether it was thought they should do so or not (this was in the year 1827, I think), and Lord Melville said 'there was no intention, at present, of sending out any further expeditions, but he could not say what they might do hereafter.' Captain Ross then said 'I should like very much to go out again, and I think I could do it at a small expense.' I said, 'Well then, put down, and let me see what you call a small expense.' He afterwards brought me a paper containing his calculation, making it about 10,000*l*. I said 'Well, I should have no objection to advance 10,000*l*. if that would be the utmost sum required ;' but I said 'I will not engage in it, because there is 20,000*l*. reward for any person who shall discover the passage, and it would look very much as though I had an object in view.' I think it was a twelvemonth after, that he came to me and said, 'Now

it is all over, the reward of 20,000*l.* is done away with, and there is no chance of an expedition going out again.' I then said to him 'I am glad of it, and that if he wanted me to assist him I was willing to do so.' He was amazingly delighted, on which I told him, 'I will assist you, but remember, it must be in the utmost confidence, and I will not do anything inimical to government.' I asked him how we could find out whether that would meet their approbation unless he were to mention the whole circumstances; and I said 'I shall not do anything, unless it is kept a profound secret.' He then informed me that Lord Melville was his friend, and that he thought he could mention it to him in confidence, and ask him whether there could be any objection to a private individual fitting out such an expedition. Lord Melville's answer was, that he could not see any objection, and that if there were any small things lying at Woolwich, from the former expedition, that would be of service to him, he should very much like to forward his views."

This was noble conduct, noble in the motive which prompted the first refusal, equally so throughout the whole transaction, and it will go down to posterity as a proof of the magnificent liberality of a British merchant, that what the government of the country, with the ample funds and other "appliances to boot," at its disposal, refused to embark in, was successfully carried forward by the public spirit and disinterested munificence of an individual. Such instances, it is true, are rare, but we should, on that very account, only prize them the more.

This sum of 10,000*l.*, however, was not the whole extent of the services bestowed by Mr. Booth upon the cause of science and maritime discovery. The whole expense to which he was put in fitting out the expedition, and in the after-charges which it entailed upon him, was between 18,000*l.* and 19,000*l.* It was at first suggested that there should be two ships, and accordingly two were fitted out, the *Victory* and the *John*. The crew of the latter vessel, however, mutinied,

in consequence of the great delay that had occurred in getting ready for sea, and the other vessel ultimately sailed without her. The proceeds from the sale of the *John* amounted to 1800*l*. During the absence of this expedition, Mr. Booth maintained the men's wives, and expended about 380*l*. which latter sum, however, has been stopped since their return, from the men, out of the payment made by order of the government.

Mr. Booth properly nominated Captain Ross sole commander of the expedition; with, of course, liberty to appoint whom he pleased under him; the only stipulation he made being that they should be persons likely to be of service. Captain Ross agreed himself to serve without any pay, as well as his nephew, Commander James Clarke Ross, of the Royal Navy. who went out as second in command; and Mr. William Thom, also, of the Royal Navy, who was formerly with Captain Ross in the *Isabella*, and who went out now with him as the third in command, and, besides, took charge of the meteorological journal.

Captain Ross, thus left at liberty to choose whom he pleased to accompany him, received gratuitous offers of zealous service and assistance, in any capacity, from two distinguished officers, Captain Back and Captain Hoppner, offers equally creditable to Captain Ross and to the spirit of those who made them. Captain Back's offer was made in Parliament-street, where he met Captain Ross walking with his nephew, when he said, "Will you take me on any terms ; I will go as draftsman, or any thing you choose to make me." Captain Hoppner made a similar offer, verbally at first, and subsequently in writing. The following is a copy of Captain Hoppner's letter, with the reply of Captain Ross :

"MY DEAR SIR,—As I feel so much interested in your noble enterprise, I cannot help expressing myself more explicitly on the subject next my heart. If you will accept of my services, I am ready to go with you, in *any capacity*, and will make over all I am worth in the world for the

advancement of your object. I promise you most implicit obedience; and will never offer an opinion, unless required. Be assured of my devotion to the great and noble undertaking, and

“ Believe me

“ Your very humble Servant,

“ H. P. HOPPNER.

“ *R. N. Club, Bond Street,*

“ *Saturday, May 21st.*

“ P.S. There is no occupation so lowly that I will not undertake.”

REPLY.

“ 160, Bond Street,

“ 23rd March, 1829.

“ MY DEAR SIR,—I return you, my warmest thanks for the handsome manner in which you have volunteered your services; but my arrangements are finally made; and I regret that it is therefore out

of my power to accept them. I am grateful for your kind wishes of success ; and I pray you to believe me very truly

“ Yours,

“ JOHN ROSS.

“ *To Captain Hoppner, R. N.*”

Captain Ross, however, naturally enough preferred, even to this most disinterested offer, that his own nephew should accompany him. He then at once, all the preliminary arrangements having been made, proceeded to Liverpool, where he purchased the *Victory*, which was fitted up with engines of peculiar construction, so made as to take up the least possible space. Some more time was spent in the preparations ; and at length, on Saturday, the 23rd of May, 1829, the *Victory* sailed from Woolwich, on its voyage to the North Seas.

The following are the names of the crew of the *Victory*, as she left this country :—

CAPTAIN JOHN ROSS, *first in command.*

COMMANDER JAMES CLARKE ROSS,
second in command.

MR. THOM, *Purser, third in command,*
and in charge of the meteorological
journal.

MR. GEORGE M'DIARMID, *Surgeon.*

WILLIAM LIGHT, *Steward.*

THOMAS BLANKY, *Mate.*

RICHARD WALL, *Seaman.*

ANTHONY BUCK, *Ditto.*

ALLAN M'INNES, *Second engineer.*

JAMES MARSLIN, *Armourer.*

JOHN PARK, *Seaman.*

JOSEPH CURTIS, *Ditto.*

JOHN WOOD, *Ditto.*

ROBERT SHREWE, *Carpenter's Mate.*

HENRY AYRE, *Cook.*

THOMAS ABERNETHIE, *Mate.*

CHIMHAM THOMAS, *Carpenter.*

GEORGE TAYLOR, *Mate.*

ALEXANDER BRUNTON, *First engineer.*

• BARNEY LACKEY, *Landman.*

DAVID WOOD, *Seaman.*

JAMES DIXON, *Landman.*

GEORGE BAXTER, *Ditto.*

Before we proceed to give a summary of the evidence of the gallant navigator and his companions, we give the following letter written by Captain Ross to Captain the Hon. George Elliott, C. B., chief secretary to the Admiralty, and dated on board the *Isabella* of Hull, Baffin's Bay, September 1833.

*" On board the Isabella of Hull,
Baffin's Bay, September 1833.*

"SIR, Knowing how deeply my Lords Commissioners of the Admiralty are interested in the advancement of natural knowledge, and particularly in the improvement of geography, I have to acquaint you, for the information of their Lordships, that the expedition, the main object of which is to solve, if possible, the question of a N.W. passage from the Atlantic to the Pacific Ocean, particularly by Prince Regent's Inlet, and which sailed from England in May, 1829, notwithstanding the loss of the foremast and other untoward circumstances which obliged the vessel to refit in Greenland, reached the

beach on which His Majesty's late ship Fury's stores were landed, on the 13th of August.

“ We found the boats, provisions, &c., in excellent condition, but no vestige of the wreck. After completing our fuel and other necessaries, we sailed on the 14th, and on the following morning rounded Cape Garry, where our new discoveries commenced, and keeping the western shore close on board, ran down the coast in a S.W. by W. course, in from ten to twenty fathoms, until we had passed the lat. of 72° N., in long. 94° W.; here we found a considerable inlet leading to the westward, the examination of which occupied two days; at this place we were first seriously obstructed by ice, which was now sure (seen) to extend from the South Cape of the inlet in a solid mass round by S. and E. to E.N.E. Owing to this circumstance, the shallowness of the water, the rapidity of the tide, the tempestuous weather, the irregularity of the coast, and the numerous inlets and rocks for which it is remarkable, our progress was no

less dangerous than tedious; yet we succeeded in penetrating into the lat. of 70° N. in long. 92° W., when the land, after having carried us as far E. as 90° , took a decided westerly direction; while land, at the distance of forty miles to southward, was seen trending east and west. At this extreme point our progress was arrested, on the 1st of October, by an impenetrable barrier of ice. We, however, found an excellent wintering port, which we named Felix Harbour.

“Early in January, 1830, we had the good fortune to establish a friendly intercourse with a most interesting association of natives, who being insulated by nature, had never before communicated with strangers: from them we gradually obtained the important information that we had already seen the continent of America; that, about forty miles to the SW. there were two great seas, one to the west, which was divided from that to the east by a narrow strait or neck of land. The verification of this intelligence, either way, on which our future

operations so materially depended, devolved on Commander Ross, who volunteered this service early in April, and accompanied by one of the mates and guided by two of the natives, proceeded to the spot and found that the north land was connected to the south by two ridges of high land, fifteen miles in breadth; but taking into account a chain of fresh water lakes which occupied the valleys between, the dry land, which actually separates the two oceans, is only five miles. This extraordinary isthmus was subsequently visited by myself, when Commander Ross proceeded minutely to survey the sea coast to the southward of the isthmus, leading to the westward, which he succeeded in tracing to the 99° , or to 150 miles of Cape Turnagain of Franklin, to which point the land after leading him into the 70° of N. lat. trended directly: during the same journey he also surveyed 30 miles of the adjacent coast, or that to the north of the isthmus, which, by also taking a westerly direction, formed the termination of the western sea into a gulf. The rest

of this season was employed in tracing the sea coast of the isthmus leading to the eastward, which was done so as to leave no doubt that it joined, as the natives had previously informed us, to Ackullee and the land forming Repulse Bay. It was also determined that there was no passage to the westward for thirty miles to the northward of our position.

“This summer, like that of 1818, was beautifully fine, but extremely unfavourable for navigation; and our object being now to try a more northern latitude, we waited with anxiety for the disruption of the ice, but in vain, and our utmost endeavours did not succeed in retracing our steps more than five miles; and it was not until the middle of November that we succeeded in cutting the vessel into a place of security, which we named “Sheriff’s Harbour.” I may here mention that we named the newly discovered continent to the southward, “Boothia,” as also the isthmus, the peninsula to the north, and the eastern

sea, after my worthy friend Felix Booth, Esq., the truly patriotic citizen of London, who in the most disinterested manner enabled me to equip this expedition in a superior style.

“The last winter was in temperature nearly equal to the *mean* of what had been experienced on the four preceding voyages; but the winters of 1830 and 1831 set in with a degree of violence hitherto beyond record, the thermometer sank to 92° below the freezing point, and the average of the year was 10° below the preceding; but notwithstanding the severity of the summer, we travelled across the country to the west sea, by a chain of lakes, thirty miles north of the isthmus, when Commander Ross succeeded in surveying fifty miles more of the coast leading to the north-west; and by tracing this shore to the northward of our position, it was also fully proved that there could be no passage below the 71st degree.

“This autumn we succeeded in getting

the vessel only fourteen miles to the northward, and as we had not doubled the Eastern Cape, all hopes of saving the ship were at an end, and put quite beyond possibility by another very severe winter ; and having only provisions to last us to June 1832, dispositions were accordingly made to leave the ship in her present port, which (after her) was named ' Victory Harbour.' Provisions and fuel being carried forward in the spring, we left the ship on the 29th of May, 1832, for Fury Beach, being the only chance left of saving our lives. Owing to the very rugged nature of the ice, we were obliged to keep either upon or close to the land, making the circuit of every bay, thus increasing our distance of two hundred miles by nearly one half, and it was not until the 1st of July that we reached the beach, completely exhausted by hunger and fatigue.

" A hut was speedily constructed, and the boats, three of which had been washed off the beach, but providentially driven on shore again, were repaired during this month; but the unusual heavy appearance of the

ice afforded us no cheering prospect until the 1st of August, when in three boats we reached the ill-fated spot where the Fury was first driven on shore, and it was not until the 1st of September we reached Leopold South Island, now established to be the north-east point of America, in lat. $93^{\circ} 56'$, and long. 70° W. From the summit of the lofty mountain on the promontory, we could see Prince Regent's Inlet, Barrow's Strait, and Lancaster Sound; which presented one impenetrable mass of ice, just as I had seen it in 1818; here we remained in a state of anxiety and suspense which may be easier imagined than described. All our attempts to push through were ~~unsuccessful~~. At length, being forced by want of provisions, and the approach of a most severe winter, to return to Fury Beach, where alone there remained wherewith to sustain life, we arrived there on the 7th of October, after a most fatiguing and laborious march, having been obliged to leave our boats at Batty Bay. Our habitation, which consisted of a frame of spars, thirty-two feet by sixteen,

covered with canvas, was, during the month of November, inclosed, and the roof covered with snow from four to seven feet thick, which being saturated with water when the temperature was 15 degrees below zero, immediately took the consistency of ice, and thus we actually became the inhabitants of an iceberg during one of the most severe winters hitherto recorded; our sufferings, aggravated by want of bedding, clothing, and animal food, need not be dwelt upon. Mr. C. Thomas, the carpenter, was the only man who perished at the beach, but three others, besides one who had lost his foot, were reduced to the last stage of debility, and only thirteen of our number were able to carry provisions, in severe journeys of sixty-two miles each to Batty Bay. We left Fury Beach on the 8th of July, carrying with us three sick men, who were unable to walk, and in six days we reached the boats, where the sick daily recovered. Although the spring was mild, it was not until the 15th of August that we had any cheering prospect. A gale from the westward

having suddenly opened a lane of water along shore, in two days we reached our former position, and from the mountain we had the satisfaction of seeing clear water almost directly across Prince Regent's Inlet, which we crossed on the 17th, and took shelter from a storm twelve miles to the eastward of Cape York. Next day, when the gale abated, we crossed Admiralty Inlet, and were detained six days on the coast by a strong north-east wind. On the 25th we crossed Navy Board Inlet, and on the following morning, to our inexpressible joy, we descried a ship in the offing, becalmed, which proved to be the *Isabella* of Hull, the same ship which I commanded in 1818: at noon we reached her, when her enterprising commander, who had in vain searched for us in Prince Regent's Inlet, after giving us three cheers, received us with every demonstration of kindness and hospitality which humanity could dictate. I ought to mention also, that Mr. Humphries, by landing me at Possession Bay, and subsequently on the west coast of Baffin's Bay,

afforded me an excellent opportunity of concluding my survey, and of verifying my former chart of that coast.

“ I have now the pleasing duty of calling the attention of their lordships to the merits of Commander Ross, who was second in command in the direction of this expedition. The labours of this officer, who had the departments of astronomy, natural history, and surveying, will speak for themselves in language beyond the ability of my pen; but they will be duly appreciated by their lordships and the learned bodies of which he is a member, and who are already well acquainted with his acquirements.

“ My steady and faithful friend, Mr. William Thom of the Royal Navy, who was formerly with me in the *Isabella*, besides his duty as third in command, took charge of the meteorological journal, the distribution and economy of provisions; and to his judicious plans and suggestions must be attributed the uncommon degree of health which our crew enjoyed; and as two out of three who died during the four

and half years were cut off early in the voyage by diseases not peculiar to the climate, only one man can be said to have perished.

“ Mr. M'Diarmid, the surgeon, who had been several voyages to these regions, did justice to the high recommendation I received of him : he was successful in every amputation and operation which he performed, and wonderfully so in his treatment of the sick ; and I have no hesitation in adding, that he would be an ornament to his Majesty's service.

“ Commander Ross, Mr. Thom, and myself, have indeed been serving without pay, but in common with the crew have lost our all, which I regret the more, because it puts it totally out of my power adequately to remunerate my fellow-sufferers, whose case I cannot but recommend for their lordships' consideration.

“ We have, however, the consolation, that the results of this expedition have been conclusive, and to science highly important, and may be briefly comprehended in the following words : the discovery of the Gulf

of Boothia, the Continent and Isthmus of Boothia Felix, and a vast number of islands, rivers, and lakes ; the undeniable establishment that the north-eastern point of America extends to the 74th degree of north latitude ; valuable observations of every kind, but particularly on the magnet ; and, to crown all, we have had the honour of placing the illustrious name of our most gracious Sovereign William the Fourth on the true position of the magnetic pole.

“ I cannot conclude this letter, sir, without acknowledging the important advantages we obtained from the valuable publications of Sir Edward Parry and Sir John Franklin, and the communications kindly made to us by those distinguished officers before our departure from England.

“ But the glory of this enterprise is entirely due to HIM whose divine favour has been most especially manifested towards us, who guided and directed all our steps, who mercifully provided effectual means for our preservation, and who, even after the devices and inventions of man had

utterly failed, crowned our humble endeavours with complete success.

“ I have the honour to be, &c.,

“ JOHN ROSS, Captain, R.N.”

This statement is truly modest, plain, simple, and affecting; and its assertions, according to the report of the Parliamentary Committee, are fully confirmed, as far as they have been examined, by the evidence which appeared before them; and is supported by the opinions of Captain Beaufort, hydrographer to the Admiralty; of Mr. Children, one of the secretaries of the Royal Society, and of Professor Barlow, who has made the magnetic variations his particular study.

The arrangement which Captain Ross originally entered into with the men who accompanied him, and whose names we have already given, was, that their engagement should be considered the same as if they were going on a whaling voyage, and thus to share with the crew of the whaler (*The John*), which he originally intended should accompany them to carry out their

stores, provisions, and other necessary parts of the equipment. However, after the mutiny of the whaler, in consequence of the alleged delay in getting ready for sea, he entered into a new arrangement with the men who ultimately did accompany him in the Victory. The terms of this second arrangement were, that the commander of the expedition was to pay them at the same rate as he had done those who had formerly gone with him on board the *Isabella* in 1818. With this agreement they were to run all risks; and they having assented to these terms, the mutinous crew of the whaler did not proceed with them.

Captain Ross, in entering into this arrangement, and abandoning that part of his plan which contemplated his being accompanied by the whaler as a store-ship, felt that he was in some degree justified—and indeed as the event verified—in going in the Victory alone, as he knew that if they succeeded in reaching Prince Regent's Inlet, they would there find the stores belonging to the *Fury*. The men had originally

signed articles for the first engagement, but when the second was entered into, so fully confident were they of the upright intentions of their superior, that that otherwise essential form was not deemed necessary.

Captain Ross brought out with him some most valuable instruments and books, which he stated before the Committee of the House of Commons cost him very nearly one thousand pounds. All of these, except his sextant, and one chronometer, he unfortunately lost during the progress of the expedition. His nephew, commander Ross, was equally unfortunate, having lost all his clothes, and the few instruments which he took out with him, these latter however, luckily were not of any great consequence. They all lost their clothes, and Mr. Thom's losses were very considerable, as he had with him an excellent as well as abundant stock of clothes.

The object of the expedition was to discover if there existed a passage, the North West, from one of the great seas, the Atlantic, to the other, the Pacific. The researches and inquiries of these navigators,

and explorers who had preceded Captain Ross, were confined to the chance of discovering this desired passage by Prince Regent's Inlet, the entrance to which, near Cornwallis Island, lies in about 75 degrees latitude, and, as nearly as possible, 90 degrees of west longitude. Captain Ross had, in his expedition of 1818, gone as far in this direction as Lancaster Sound, in the same degree of latitude, but not within 10 degrees of the same longitude; while Captain Parry, in his expedition of 1824-5, had passed as far down Prince Regent's Inlet, as about 72 degrees latitude. That gentleman, at the close of the account of his first voyage, in 1819, writes as follows:—

“Of the existence of a North-west Passage to the Pacific, it is now scarcely possible to doubt; and from the success which attended our efforts in 1819, after passing through Sir James Lancaster's Sound, we were not unreasonable in anticipating its complete accomplishment. But the season in which it is practicable to navigate the

Polar Seas, does not exceed seven weeks. From all that we observed, it seems desirable that ships endeavouring to reach the Pacific Ocean by this route should keep, if possible, on the coast of America, and the lower in latitude that coast may be found, the more favourable will it prove for the purpose; hence, Cumberland Strait, Sir Thomas Powis, Welcome, and Repulse Bay, appear to be the points most worthy attention."

Most of these points, Captain Parry and others discovered to be impenetrable, the land being continuous in them all, and the only chance which remained of such a passage being in existence at least in so low a latitude as in the 74th degree, has been set at rest by the expedition of which we are about to present the reader with the details.

Captain Ross, in his examination, says, "The reasons of the expedition, were of course, for the benefit of science, and to decide the question which had been agitated for the last two hundred years, and to decide also whether there was that passage to

which Captain Parry and Captain Franklin directed their attention ; and in that case it would have been found beneficial to the country, if there had been a passage in that direction, because it might be a navigable one. If it had been navigable, it might have been a benefit to the country ; but no passage to the northward of the 74th degree can be of any use to the country ; a passage to the northward of the 70th degree would be an advantage."

On the 23rd of May, 1829, Captain Ross and his adventurous crew left Woolwich. The steam power employed in his ship was of a wholly new principle, being so contrived as to combine every advantage of steam power with perfect capability as a sailing vessel. The boilers used, occupied so small a space, that they were fixed between the engines ; the consumption of fuel was one-half, and the weight of the engines one-fourth of those generally in use. Another advantage which it enjoyed in its construction was, that a chimney could be dispensed with, leaving the deck, masts, and rigging,

wholly unencumbered. So well was the secret of Mr. Booth preserved at the time, that not one of the newspapers adverted to his share in the expenses of fitting out the expedition, which they all united in stating, had been at the private cost of Captain Ross.

During the early part of the outward voyage the Victory lost her foremast, and other untoward circumstances occurring, they were obliged to put into Wideford on the Greenland coast to refit, on the east side of Davis's Straits. Finding thus early her machinery nearly useless, Captain Ross took steps to convert his steam ship into one of a character more suited to the regions in which he was proceeding. He accordingly equipped it as a sailing vessel, partly from the resources he had brought out from England, and partly from the materials of a London whaler which he found abandoned on that part of the coast.

On the 27th of July, 1829, he was enabled to leave this place, and his doing so was the last account heard in Europe

of the adventurous navigator and his daring and gallant crew, until they were discovered four years afterwards by the *Isabella*.

The voyage out, during the autumn of 1829, was one of the most prosperous on record among these seas. The weather was unusually mild, and the sea less blocked up with those floating continents of ice, which had been the principal impediment on all similar experiments previously made, than had been the case in any previous expedition.

The *Victory* pursued its voyage up Baffin's Bay into Lancaster Sound (laid down in the maps of Captain Parry as Barrow's Straits), making as directly as possible for Prince Regent's Inlet to the spot where the wreck of the *Fury* had been abandoned by Captain Parry. This point is in latitude $72^{\circ} 41' 30''$, and in longitude, by the chronometrical observations of Captain Parry, $91^{\circ} 50' 05''$. The dip of the magnetic needle was $88^{\circ} 19' 22''$ and the variation $129^{\circ} 25'$ westerly.

He reached the spot indicated by Captain Parry on the 13th of August, in which month, at a later period, exactly four years before, the Fury had been abandoned by that officer.

Captain Ross was fortunate enough to find here the keel of that ship, the only part which, after a lapse of four years, remained of the Fury. He landed without difficulty on the indicated spot, and was of course much pleased to find that he had not only accurately reached the precise spot, but to discover that the stores which had been left by his predecessor in those seas were as he had reason to suppose them. Some of the timbers of the Fury were also found in the immediate vicinity of the place, and these afforded most seasonable relief.

On the 14th of August, having supplied all his wants from the stores of the Fury, he advanced to the southward in Prince Regent's Inlet, as far as Cape Garry, a headland near the spot where the Fury lay, and so named by Captain Parry during the voyage of 1825, after his friend Nicholas

Garry, Esq, one of the most active members of the Hudson's Bay Company.

From this point the west coast led him as far as latitude 72° north, where the first serious impediment from the vast masses of ice was encountered.

In his passage down Prince Regent's Inlet, he occasionally landed to take possession, after the manner customary on those occasions, of the newly discovered territory in the name of the King of Great Britain.

Owing to the rapidity of the tides in this inlet, which is of small width, and consequently difficult on that account of navigation, as well as the currents, which, from the same cause, are extremely violent, the voyage through this passage was one of great peril. The coast besides is of a rocky character; but through the great skill of Commander Ross, to whom this part of the expedition was very properly intrusted by his uncle, no danger greater than the usual sea risks was encountered.

From the perils of a voyage of this descrip-

tion, which more than once threatened to terminate fatally, they ultimately obtained a temporary escape by reaching 72° of north latitude, and 94° of west longitude, nearly due south of Fury Point, when their course was finally arrested by an immense and impenetrable barrier of ice. There in a harbour at this extreme point, they passed their first winter.

This whole district abounds in furs of a valuable description, and when it becomes better known, the traffic with the natives cannot but prove highly advantageous to the Hudson's Bay Company.

They penetrated as far as the latitude of 70° north, and west longitude 92° , when the land, after carrying them as far east as 90° , took a westerly direction. The ice stopped them here on the 1st of October.

In January of the ensuing year, 1830, they opened a communication with a tribe of natives who had previously never been visited by strangers.

These natives, with whom they had considerable intercourse, are described by Cap-

tain Ross as possessing a primitive character for simplicity of manners which, at the present day, it is almost vain to hope to find in any of the regions visited by our English navigators. They are mild and inoffensive in their manners, living in harmony with each other, and treating their children with extreme kindness and attention.

From these simple and primitive Esquimaux they learned, in the progress of the intercourse which grew up between them, that the east sea, or Atlantic, was divided from the west, the Pacific, only by a neck of land; and as they stated this with great confidence, as if apparently the result of acquired and almost daily observation, Captain Ross determined on sending an expedition to ascertain the point.

Commander Ross was accordingly sent to ascertain this point, and both then, and during the subsequent exploring visits he made while there, was accompanied generally by four or five men. The number of times he went he himself states, in his

testimony before the committee, to have been five or six, and that the greatest length of time at any one period was about a month. On two occasions he was about that period away; at others about ten days or a fortnight.

Commander Ross states that the whole crew together discovered about two hundred miles of coast in the ship. This was exclusive of what had already been discovered and surveyed by Captain Sir Edward Parry during his third and final voyage. They went down Regent's Inlet till they came to the wreck of the *Fury*. The spot where this ship had been left by their predecessor was about a hundred miles to the southward of the north-eastern point of America, and they went down in the ship full two hundred miles beyond the wreck.

Captain Ross's letter to the Lords of the Admiralty, already given, states the result of his nephew's expedition to ascertain this point.

While here, the great object seems to have been the taking of meteorological observations; these comprised the direction of the

wind, its force, the state of the weather, and the height of the thermometer every hour for three years at nearly the same spot, which certainly supplies a great desideratum, as by its means the temperature of their locality may be compared with those of other parts of the globe. In order to direct his attention to this particular object and observations, Captain Ross states that he had had, before he left England, some correspondence with scientific men, particularly from the then president of the Royal Society, Davies Gilbert, esq., and another gentleman well known in the scientific world for his observations, productions, and discoveries, Sir David Brewster.

Mr. Thom had principally the meteorological journal in charge ; the men stationed to watch, having been taught to look regularly at the thermometer every hour, to note the wind, its direction and force, as already mentioned, and also the state of the weather ; and these they inserted in a log-book, kept for that purpose, every hour during the period of three years which they remained there.

31. The lowest point at which the thermometer ever stood, during the period their stay here embraced, was sixty degrees and a half below zero, which is ninety-two and a half below the freezing point of Fahrenheit. This was in January, 1831. It was very seldom so low as that; it had been frequently as low as eighty degrees below the freezing point, but never except once, for a few days, so low as ninety. They often however had eighty-five; at this time there was no wind. In all former attempts to live under such an extreme degree of cold, death was the result; as the melancholy cases of Sir Hugh Willoughby's crew, who all perished and were found dead in their huts; and the party of sailors at Spitzbergen; who were likewise all found dead with cold; but too well attest.

Captain Ross attributes the preservation of his party from the fatal effects of cold; to the method they took of ventilating their hut and covering it with ice. They were also without spirits for the latter fifteen months of the voyage, and he attributed

to this fact a considerable portion of the healthy state in which the party were. They had also some cocoa during the greatest part of the time, but latterly the allowance was extremely limited, and for the last six months they remained, it was wholly exhausted. They had some coffee made of burnt peas.

The letter written by Captain Ross, which we have already given, does not go much into detail; but still it presents the main features of the proceedings of the expedition during the period of its absence. The Committee of the House of Commons, as will be perceived, did not press the gallant officer who commanded it, to disclose, during the progress of his examination before them, more of those details than he seemed willing to afford them. We are therefore left somewhat in the dark on many points of great interest, but enough remains to render our narrative not only clear, but tolerably precise as to the great features of the events which took place during their residence in the inhospitable

region, where they were so long ice-bound ; and also to afford a distinct idea of the nature and extent of the discoveries they actually made.

It was not at all unreasonable to expect that Captain Ross should have been to some extent, jealous of giving more information than was absolutely necessary to justify his claim to any reward which the Committee might think him fairly entitled to for the discoveries made. Offers of considerable sums of money have, it appears, been made to his nephew, for the use of his notes and papers ; but with a highly creditable feeling of deference to his relation, he seems to have resolutely resisted all such temptations.

We copy from the printed Report of the Examination : —

“ 41. The Committee have read a letter, addressed to the Admiralty, from on board the *Isabella*, which gives a general statement of what took place during your last expedition ; is it your wish to have that entered as your statement? — That

will do well enough: I can explain the scientific effect of the discovery of the magnetic pole."

"42. But the general narrative of those four years and a half, you consider quite sufficient in that statement? — Yes."

The effects of the discovery of the magnetic pole, the gallant officer then proceeds to state. They were, he says, when near the magnetic pole, in a position where the horizontal compass had no power of traversing to any particular point. The longitude where this curious phenomenon was observed, has not been ascertained with the precision which its importance to purposes both of science and commercial utility would require; but it is stated to be, as nearly as they could make out, about $96^{\circ} 47'$ of West Longitude. Captain Parry, it seems, suggested its probable position.

Captain Ross states, that it was within about thirty leagues of the spot which Captain Parry supposed probable. When the compass was placed on the spot where the

locale of the magnetic pole is situate, the power of attraction was at right angles to the needle, and of course its power of turning in either direction horizontally was completely lost.

We shall pursue Captain Ross's statement in reference to the magnetic pole, in order not to break in on the continuity of his narrative. In answer to a series of questions from various members of the Committee, he states that one of the most important results which their being at the pole enabled them to arrive at, was observing the effects of various agents on the needle itself. The points which thus came under observation were the effect which light, heat, and all other combinations that may form part of the magnetic influence, when in conjunction with that influence, had upon the needle, when at liberty to act upon it without such conjunction. One of the most curious of these observations was that when the sun went round, they saw the magnetic needle following it, realising the poetical illustration of the sunflower, and the god

whom it is supposed to worship, turning to where he sets with

"The same look that she turned when he rose."

This fact at once established, what had been a desideratum in science, that the sun does possess an influence on the magnet, or that its heat and light partake in the mysterious agency which makes the mariner's safety. The light of a candle had also an effect in a very diminished degree upon the magnet. There can be no doubt that these facts establish a matter of considerable importance to science, inasmuch as they infallibly demonstrate the connexion between light and heat and magnetism. Metallic substances also produced some impression here on the magnet; the brass buttons of the coat attracting the north point of the needle towards them.

The position of the magnetic pole had, it appears, been decided at the time when these phenomena were observed, by previous observations. They had by a series of such observations determined that they were within a very short distance, at the spot where the ship lay imbedded in the ice, from

the magnetic pole ; and by continuing their observations, and remarking the variations as they were successively indicated, they arrived on the very spot. Before they reached it, they were at a variation of 90° westerly, having previously to that been twice that extent of variation, viz. 180° . They passed round the spot where the magnetic pole exists, and whichever way they passed as they went round it, the compass turned towards it horizontally ; and when they were to the north or south of it, they turned a variation of 180° ; when they were east or west, their variation was exactly 90° . This increased by degrees as they proceeded round it, and the observations were made with instruments of the nicest accuracy, and most delicate construction, being hung on hairs ; some of them were constructed by Dollond for the express purpose of taking these and other observations made during the progress of the expedition.

The Committee then, in order to establish the claim, undisputed and undivided, of Captain Ross to this important discovery,

and to show that, although two of the adventurous English seamen who had preceded him in these seas, had *guessed* with a tolerable degree of accuracy at the position of the magnetic pole, still they had not made the actual discovery, put the following questions:—

“55. Although Captain Parry never arrived at the point of the magnetic pole, is it not the case that he had ascertained its situation by experiments that he had made?—Certainly not (is Captain Ross’s answer). Captain Parry is as much on the one side as Captain Franklin was on the other; and it is an extraordinary fact, the mean between the two comes within a short distance of the actual spot.

“56. Does Captain Parry state in any part of his despatches to the Admiralty, or in his work, that he discovered the magnetic pole?—No.

“57. He lays no claim to it?—No; he only stated the supposed position of it, which turned out to be a hundred miles erroneous.

58. Within what area do you conceive you have reduced the situation of it?—One mile.”

Subsequently, in the progress of his examination, Captain Ross stated on this point, that the actual position of the magnetic pole was taken by observations by Commander Ross, who reported to his uncle, that he had reached the actual spot. This fully accorded with the Captain's own observations at the ship, and at several other places at a short distance from the position where his nephew laid it down. He is asked : —

“ 233. Are the Committee to understand, that at several particular spots, that particular position of the magnetic needle took place, which authorises you to assert such spot or spots to be the true position of the magnetic pole ; in other words, did the needle dip perpendicularly at more than one spot, and if at more than one, what was the distance between any one and any other ? ”

To which his answer is,—

“ The needle dips more at the exact spot where the magnetic pole was found, than at any other spot.”

“ 234. What was the area ? — I think within a mile ; but all these things are going through a Committee ; there is a Committee of scientific calculations ; there is a spherical calculation by scientific people on shore, which will make the necessary allowances for the spherical figure of the earth.”

This spot, where the true magnetic pole was discovered, was first named after the Duke of Clarence ; but the day after the arrival of Captain Ross in London, he waited on his Majesty, at Windsor, and received the Royal permission to change the name to that of “ King William.”

It was not, however, Captain Ross who himself visited this spot ; that duty devolved upon his nephew, who planned and executed the voyages of discovery made from the spot where their ship lay imbedded in the ice. This gentleman states the whole extent of geographical discovery to be perhaps between six or seven hundred miles of new land ; and out of that six or seven

hundred miles, probably about two hundred miles were discovered by the whole expedition in the ship; the remaining four or five hundred miles were discovered and explored by himself, in the conduct of parties detached from the ship, which were all planned and carried on under his separate guidance and control; Captain Ross not accompanying him in their progress. From the personal observations which Commander Ross had been making during the two years he was ice-bound in the Victory, he inferred that he had discovered the true position of the North magnetic pole. The nature of those observations was directed to the determination of its exact position; and having by these means ascertained and determined the precise spot, he then conducted a party of the crew to the spot so determined on, and there made a series of observations by which he ascertained the correctness of the calculations made from his previous observations, and that he had reached the true site of the magnetic pole. These observations

have since been communicated to the Royal Society, who immediately directed that they should be printed in the Philosophical Transactions.

Captain Charles Beaufort, R. N., who was himself employed by the Admiralty, in a voyage of observation to the Arctic Seas, states as his opinion, founded rather however on general belief, than any certain data, that the magnetic pole is a revolving point, but that he could not say in what direction. He adds, when asked whether he has any reason to believe that Captain Ross discovered, or that he approached the temporary position of the magnetic pole during this voyage? that his opinion is, from what Captain Ross says, that he appears to have been very-near it; and that his observations very nearly agree with those of Captain Franklin, and Captain Parry, in their previous voyages; that they all point to about the same place, but he much nearer to it than his predecessors. He afterwards strengthens this statement by declaring that he thinks either he or his nephew ap-

approached close to it, from the description they give of their observations.

“Did he,” asks a member of the Committee (258), “fix the situation of the magnetic pole with greater accuracy than had been previously done by others?—I think whoever approached nearest to it may be considered to have the best claim to that honour; but there can be no specific or precise point within a degree or half a degree: like the point of a needle, its exact position must be involved in doubt, even with the most accurate observation, and can be determined only by observing the direction of the needle at several different points around it.”

Mr. Children, one of the Secretaries of the Royal Society, however, in his answers, appears to be not quite so niggard of the praise which he thinks the discovery of the magnetic pole demands. It is his opinion, from what he knows of Captain Ross's discoveries during this voyage, that the expedition has been productive of important advantages to science. His own words are:

“ I think it has been productive of important advantage to science, by Commander Ross’s having clearly ascertained the position of the north magnetic pole : I think that there is a singular coincidence in the spot which he has determined by experiments to be the true position of the north magnetic pole, and that inferred from philosophical considerations by Professor Barlow. Professor Barlow published a paper in the last *Philosophical Transactions*, on magnetic lines of equal variation ; at the conclusion of that paper he says that to which I will beg the attention of the Committee ; it will perhaps put in a stronger light the importance of that discovery than any thing I can say. It is a postscript to Mr. Barlow’s paper on the present situation of the magnetic lines of equal variation : it is dated November 18, 1833 :—‘ Since this paper was read, and the globe and chart referred to in this article were drawn, Captain Ross has returned from his long and adventurous voyage. It will be seen by a reference to the Polar Chart, that although I was en-

abled to lay down the curves of equal variation to within a few degrees of their point of concurrence, yet they are all terminated before arriving at it, for want of sufficient data. These are now supplied; and it is very gratifying to me, as I hope it may be also to Captain Ross and to Commander James Ross, to find that the very spot in which they have found the needle perpendicular—that is, the pole itself—is precisely that point on my globe and chart in which, by supposing all the lines to meet, the several curves would best preserve their unity of character, both separately and conjointly, as a system.’ The importance, as it strikes me,” continues Mr. Children, “of their coincidence, is this: it is clearly of very great importance to navigation to know what the variation of the needle is in every part, and the lines of equal variation which Professor Barlow has laid down, will be in that respect extremely important if they are true; their coincidence with the actual observations of Commander James Ross must necessarily give a great confi-

dence in them, as *à posteriori* proof of the accuracy of the calculations he had come to by *à priori* reasoning—an experimental proof of the accuracy of what he had laid down.”

We have here concurrent testimony from quarters not alone qualified to pronounce upon the merits of the discovery made by Commander Ross of the exact position of the north magnetic pole, but beyond all suspicion as to the truth and sincerity of their opinions. Had the expedition been attended with no other beneficial result, it would have well merited the parliamentary reward which was bestowed upon its enterprising commander, the promotion his officers received, and the increased pay given to the crew from the Lords of the Admiralty. The sum recommended to be voted to Captain Ross was 5000*l.*, an amount which it will be seen by reference to his own account of what he expended on the objects of the expedition from his own private fortune, is hardly sufficient to cover what he actually laid out. The Committee, in their Report,

which prefaces the testimony of the witnesses examined, adverting to this point, say :—

“ Captain Ross alone, the commander of the expedition, who had the anxious and painful responsibility of the health and discipline of the party for above four years, under circumstances of unparalleled difficulty and hardship, and who had the merit of maintaining both health and discipline in a remarkable degree, (for only one man in twenty-three was lost in consequence of the expedition,) is, owing to his rank, not in a situation to receive any reward from the Admiralty in the way of promotion. Having incurred expenses and losses to the amount of nearly three thousand pounds, and received no more than the half pay which had accumulated during the expedition*,

* To which should be added, when forming the estimate of Captain Ross's losses, the amount of interest due on the sums as they became payable to him; this would have made about two hundred pounds, which his agent was not able to receive without a certificate from him, and that of course was out of the question.

he remains with the same rank with which he went out. Under these circumstances, and looking to the advantages to science and the honour to his country which have resulted from the expedition under his command; looking to the expense which the country has been willing to incur on former occasions for similar expeditions, and to the rewards which it has voted even for far less important and honourable objects, your Committee hope they are not transgressing the bounds of a due regard to public economy, in recommending that a sum of five thousand pounds be voted to Captain John Ross."

Had the Committee recommended double the sum just stated, we doubt whether two individuals, capable of appreciating the advantages thus slightly adverted to in the Report, could be found in England to say that it was more than he had well merited. Indeed the Committee seem impressed with all these advantages themselves, for in their Report they say, "The importance, especially to a maritime nation, of this discovery, and

of the observations connected with magnetic science arising thereout, is most highly estimated by the scientific witnesses who have been examined, and is further attested by the zeal with which this branch of science has been of late pursued by eminent men in every country, and by the expense which several foreign governments have of late years incurred for the same object."

The allusion in the latter part of this extract refers to the government of Norway, which has given Hanstein, known for the accuracy of his researches and deductions on the subject of the magnetic pole, the sum of three thousand pounds to prosecute his discoveries in Siberia. Russia has also been pursuing inquiries on the same subject with great zeal within the last few years. It was one of the leading objects of Kotzebue's voyage to ascertain the position of the north pole, and also of Hanstein's. The French too have been paying great attention to the discoveries of magnetism, and M. Arago and others have devoted much time and attention to the whole subject,

especially that branch of it which comes under the denomination of electric magnetism ; and our countryman, Mr. Faraday, has been directing the energies of his mind to the same subject.

In Felix Harbour they remained until May the 29th, 1832, and it was here the discoveries were made which we owe to this expedition ; the laying down of the Gulf of Boothia, and of the Continent and Isthmus of Boothia Felix, with, as Captain Ross's letter to the Admiralty states, " a vast number of islands, rivers, and lakes, and the undeniable establishment that the north-east point of America extends to the 74th degree of north latitude." Of the period spent here, nearly three years, Captain Ross's letter gives rather a hurried outline. To this we are enabled, from the testimony of the gallant commander and his officers, to add some interesting particulars of what occurred during their stay.

During the whole autumn of 1830, the voyagers patiently but vainly awaited the hoped-for dissolution of the ice, an event

which had taken place the year preceding. It was in vain, however, that they now expected this breaking up of the masses of congealed matter which kept them in close custody ; they were unable to retrace their course to any greater extent than four or five miles, when they were again arrested by the inexorable barriers which had kept them so long ice-bound. This winter (1830) was unparalleled in its severity, the temperature descending to a greater depth below the freezing point than we have had any record or account of before.

The natives having informed the party, during their sojourn here early in the year 1830, that about forty miles to the southwest of Felix Harbour there were two great seas, divided from each other by a narrow neck of land, Commander Ross was detached early in April, accompanied by one of the mates, and guided by two of the natives, to ascertain the point. They found that the intelligence communicated by the natives was correct, and that the northern and southern continents were connected by two

ridges of high land, about fifteen miles in breadth. The Committee, in reference to this, state, that the expedition has produced "the demonstration, that one passage, which had been considered by preceding navigators to be one of the most likely to lead from the Atlantic to the Pacific Ocean, does not exist, thus narrowing the field for future expeditions, should any such be undertaken."

The examination of Captain Ross on this point is so positive, as to his belief that no passage exists here, or indeed at all to the southward of the seventy-fourth degree of latitude, that we extract it entire:—

"170. Do you conceive you have ascertained the fact, that there is no practicable communication between the Atlantic and Pacific Oceans?—Positively, to the southward of the seventy-fourth degree.

"171. You do not mean to express an opinion decidedly, that it is impossible there should be a communication discovered farther north?—Certainly not.

"172. But such communication would be of no benefit to commerce if it should exist?—No.

“ 173. Being in so high a latitude?—
It could not.

“ 174. You still think it is possible there may be a practicable communication?—I think it possible, but not very probable.

“ 175. You have no reason to suppose that the land discontinues to the westward?—I have no reason to suppose that it does, or that it does not.”

Captain Ross had, it appears, visited this isthmus himself, after his nephew had been sent thither, and was therefore competent, from actual observation, to pronounce a decided opinion on the point at issue. He mentions a curious and conclusive proof that no such passage exists, in the fact that there is a considerable difference in the altitude of the two seas east and west of Boothia Felix. The conclusion which he draws from this, and it is almost a self-evident one as far as reasoning *à priori* can proceed, is, that there is no such passage; but he admits, reasonably enough, that it is only a negative argument at best. The difference of altitude which was there perceptible amounts fully

to thirteen feet, but we do not find it stated whether the east or west sea is the higher. The Captain states, in reply to a question put to him in the Committee on this point, that upon the supposition that the land is continuous northward from the seventy-fourth degree to the pole, we should expect to find that difference of altitude in the seas from the rotative motion of the earth.

The discovery of this difference of altitude between the two seas, bounding the isthmus which unites Boothia with the continent of America, was made by a party under the sole conduct of Captain Ross, at a time when his nephew was engaged on other service, and could consequently have no opportunity, according to Captain Ross, of ascertaining the fact. The discovery was made at two different periods, when the chief of the expedition went in June, 1830, and at the end of May in the subsequent year, with provisions to Commander Ross, then out on two of the exploring parties, which he was in the constant

habit of making during the whole period of their detention in Boothia Felix. There can be no doubt of the fact as Captain Ross states it ; as the observations made at those two different periods give the same result ; and the measurements were made in the usual way with the theodolite, and the process, to those who understand it, is not only very simple but incapable of leading to error. There are, it seems, eight feet rise and fall of tide on the east side of the isthmus, and only fourteen inches on the west side : this was tried each time on the spot, and the result found to be, without variation of any extent, the same. Captain Ross broke a hole in the ice, to ascertain the point with the greater nicety.

Captain Beaufort says, that this discovery that no passage exists in the Inlet, adds a short but very important link to our knowledge of the geography of the northern extremity of America ; but he says, that while thus far its importance is indisputable, it throws no new light on the navigation of the Arctic seas. Captain Parry supposed, that

there might be a channel through Prince Regent's Inlet, into the Pacific Ocean. The closing up of this inlet narrows the range within which a North-west passage may be found to a very short compass, by one of its openings at least. But there are, it appears, three from the end of Lancaster Sound, still open, by which success may be perhaps attainable. These are by the Wellington Channel to the North-west, that is by going to the northward of the chain of islands discovered by Captain Parry, and approximating the Pole. The islands are those which now go by the name of the North Georgian Islands, including Sabine Island, Bathurst Island, &c. Another proceeds by Melville Island, in the same direction that Captain Parry had previously tried; in the voyage of 1818 he proceeded as far west as 115 degrees of longitude, and in latitude 74 degrees. And the third, according to Captain Beaufort's supposition, would be by getting to the South-west, as soon as the vessel has passed the Cape which Captain Ross supposes to be the

northern extreme of America; and then endeavouring to get over to the shore laid down by Captain Franklin and Dr. Richardson, in the expedition of 1825-27, in the direction of the Copper-mine River. Captain Beaufort is pressed on this point and asked :

“280. Do you consider that the closing the most southerly outlet, closes that supposed to be most likely to be practicable? No,”—is his answer ;—“for that is not the route I should have taken, if employed on that service.

“281. Do you conceive,”—the Committee again ask — “that the question is settled up to the 74th degree of north latitude?—We know of no openings between that latitude and Hudson’s Bay.

“282. How far east of Melville Island did Captain Ross come?—Twenty degrees of longitude ; but the degrees of longitude there are very small.

“283. Was the passage by Prince Regent’s Inlet considered, before this expedition, as the most likely? — There was

always a great difference of opinion on that subject, amongst those who pursued the inquiry.

“284. Was that Captain Parry’s opinion? — I really do not recollect; I had not much conversation with him upon that part of the subject.

“286. If the sea had been clear of ice, there would have been a great probability of finding a passage? — Undoubtedly, as it would have afforded the shortest road to Franklin’s Coast.”

While on this part of the subject, as to the practicability of the future discovery of a north-west passage, we should consult the testimony of Commander Ross, who personally examined more of the coast than his uncle; and who had accompanied all the previous expeditions of discovery to those shores, made for some years before. He had served in five such voyages, and passed fourteen summers and eight winters in those seas. His experience, therefore, must be considered as possessing very great weight in coming to a sound judgment on the

point. He says, that the closing of Prince Regent's Inlet depends, on actual survey, to a certain extent only ; and so far is he from thinking that this voyage has furnished any conclusion against the existence of a North West passage, he declares that it has, on the contrary, in his opinion at least, only made it more certain that a North-west passage must exist. He gives as the reasons for entertaining this belief, the result of observations he made during this expedition ; and the knowledge derived from the additional portion of the continent of America explored on this occasion, on its northern coast, and of the western coast of Boothia.

The questions put by the members of the Committee to Commander Ross on this point are extracted in full :—

“ 371. Do you believe that it would be practicable to go through that North-west passage? There is no question that it would be much more easy, now that we are acquainted with the nature of the formation of the continent of America.

“372. Would it be best accomplished by steam or by sailing? By sailing.

“373. Supposing this to be accomplished, would it be at all beneficial to commerce? It is quite uncertain what benefit may result from it; in favourable seasons it may be possible to get through it with very little difficulty; for instance, in our last voyage we sailed in an open sea, where it is usually covered with ice; but it was a remarkably favourable season; such seasons may occur periodically; if so, there would be no difficulty, on those occasions, in getting from Baffin's Bay to Behring's Straits.

“374. Do you believe that any attempt to penetrate would be attended with danger? Nothing more than the ordinary danger of navigating those northern seas.

“375. Any more than in a common whaling expedition? None; except a little more, perhaps, from being necessarily close in with the land; but nothing to deter the attempt.

“38. Is there any difficulty in navigating

Prince Regent's Inlet? The only difficulty in that is on account of the tides, which are stronger there than they are in Lancaster Sound, from its being a more contracted space."

From this it is evident that a discrepancy of opinion exists (although, perhaps, on explanation, as the questions proposed to both the officers, by members of the committee, are not very precise, it may be rendered perfectly reconcilable,) between Captain Ross and his nephew, as to the probability of the sought-for passage being still discovered. It seems that Commander Ross was not, up to the moment of his examination, aware of the discovery his uncle had made, that the two seas, right and left of the isthmus which unites Boothia with the continent of America, are of different altitudes; as he says, he had not the means of ascertaining the fact with accuracy; and he is further of opinion, that it would take at least two or three months to ascertain it, with the necessary degree of accuracy such an observation

would require. Indeed, on this head he goes still farther, and declares that Captain Ross may have made observations which have satisfied his mind, but he (Commander Ross) doubts whether he can have made observations that would satisfy the minds of those who may investigate the matter.

Boothia, the region where they remained during their sojourn in the *Victory*, is in latitude 70° north, and longitude 92° west; "the land," we are quoting Captain Ross's description, "is entirely of primitive formation, the rocks being composed of various kinds of granite, and destitute of vegetation, except in the valleys, in some of which are lakes of a considerable size, but frozen over, excepting a part of July, August, and September. Reindeer, hares, and foxes, were seen here, and two kinds of grouse and hares were also constantly ranging along the coast."

While here, on the 9th of January, 1830, Captain Ross and his officers having previously fallen in with a party of Esquimaux, whose confidence they were speedily enabled

to gain by giving them trifling presents, persuaded them to accompany his party to the Victory. In honour of this visit the ship had all her colours flying. We have the names of two of the tribe, Illictu and Tullooachiu, both of whom the crew drew in sledges for some distance.

An island, a little to the left of the spot where the Victory lay, formed the harbour, and on this island, on a high headland, the observatory was erected. It contained a three feet transit instrument and a six feet telescope, at which frequent observations were made of the planets and other heavenly phenomena.

Since his arrival in this country, Captain Ross has afforded Mr. Burford, the proprietor of the Panoramic exhibitions, the means of gratifying the public curiosity with respect to Boothia; and a view of the position of the ship on the day already stated as that of the visit from the Esquimaux, has accordingly been exhibited for some time past. The little descriptive volume placed in the visiter's hand gives the follow-

ing sketch of the appearance, &c., of the country. As the whole has been got up under the immediate personal superintendence of Captain Ross, its accuracy may of course be depended on.

“ The sea around (the ship) presents one continued field of ice, towering icebergs of gigantic size, and singularly fantastic form; immense masses thrown up by pressure, called hummocks; pyramids, cavities, and an endless variety of forms, heaped together in wild disorder; from some huge stalactitæ are gracefully pendent, others are surrounded by sparry crystal and brilliant icicles, the prominent surfaces tinged with the most vivid emerald and violet tints and the most intense blue shades lurking in the recesses, presenting a splendid exhibition of icy grandeur.

“ The continent called by Captain Ross Boothia, and the adjacent islands, present nearly the same appearance, being only distinguishable from the ocean by the bare sides of steep and precipitous rocks which occasionally rise to a great height, present-

ing horizontal and perpendicular strata of primitive granite ; and in some places vast masses are piled with extreme regularity, in others so confused that they evidently mark some violent convulsion of nature. These dark and frowning precipices, without the least marks of vegetation, form a singular contrast with the pinnacles of ice, and the sparkling whiteness of the surrounding snow. . On every side the eye stretches over one interminable field of ice and snow, whose very barrenness is beautiful, but which conveys a feeling of total privation and utter desolation.

“ Towards the south, the horizon was overspread by an arch of bright and splendid crimson light, which was always visible about noon, even when the sun was at its greatest southern declination ; indeed, the return of what might be considered day was always marked by so considerable a light, that by turning a book towards the south, the smallest print might be read without difficulty ; and the brightness of the moon and stars, together with the reflection from the sun, rendered

any thing approaching a deep or positive gloom of rare occurrence. The opposite portion of the hemisphere was splendidly illumined by that extraordinary and beautiful phenomenon, the Aurora Borealis, vividly darting its brilliant coruscations towards the zenith in endless variety, and tinging the ice and snow with its pale and mellow light; the remaining portions of the sky are clear, dark, and unclouded, thickly studded with numberless stars, shining with peculiar lustre, the whole forming a striking and romantic scene, difficult to conceive, and impossible to describe; the awful grandeur and sublimity of which cannot be contemplated but with the most intense interest and enthusiastic admiration."

This spot was singularly destitute of vegetable productions, the only thing produced there being a little sorrel. The only botanic discoveries they made were some small plants incident to all these climates. Three new ones spring up in the month of August; none of these, however, are used

as vegetables, except a little sorrel occasionally. At Fury Beach, but of course all this time out of their reach, there were some preserved vegetables.

The exploring expedition to the isthmus, between the two seas, was the principal feature of this year's proceedings. Commander Ross discovered that it consisted of two ridges of high land, about fifteen miles in breadth, intersected by a chain of freshwater lakes, reducing the actual dry land to about one-fifth of the whole width. He subsequently surveyed the sea coast south of the isthmus, as far as the ninety-ninth degree, or about a distance of 150 miles from Cape Turnagain of Franklin. He also surveyed thirty miles of coast to the north of the isthmus, and as much to the southward as left no doubt that the land joined Repulse Bay; and he determined that there was no passage southward for thirty miles to the north of their then position.

In the latter period of the summer, they determined to try and explore a more northern latitude, in search of the expected

opening ; but owing to the vast quantity of ice which remained throughout the whole time, they could only succeed with immense and unceasing labours, by all the means in their power, in retracing their steps for the trifling distance of four miles to a spot which they denominated Sheriff's Harbour, where the winter of 1830-31 was passed. The exploring expeditions were not suspended, as far as they were practicable, during this period. Captain Ross himself surveyed fifty miles more of the coast, and ascertained the important point, that there was no passage in existence below the seventy-first degree.

It was while here that the thermometer fell to the lowest degree of which we have any record, viz. 92 below the freezing point ; the sufferings of the officers and crew during this period may therefore be judged of from this solitary fact.

In the autumn of 1831, they were enabled to bring the Victory a further distance of fourteen miles to the northward, but still they had not been able to reach the East

Cape, so as to double it, and their provisions becoming nearly exhausted, they began first seriously to think of abandoning the ship, in order to reach the beach where the boats and provisions of the *Fury* were.

On the arrival of the *Victory* in Felix Harbour, every possible arrangement had been made to render the situation of the officers and crew as comfortable as, under the circumstances, it was possible to render them. The whole of the deck was covered over at a moderate height with sail cloth properly stretched on spars. The whole of the steam machinery was removed. A snow wall of considerable thickness, about seven feet, composed of large blocks, was erected, to defend the vessel from the northern blasts, and the still more dangerous snow drifts which were daily driven on them. Another great advantage they felt from this wall, as well as from the situation in which they were when Captain Ross describes them as "the inhabitants of an ice-berg," was that the non-conducting power of the snow retained the heat longer than otherwise would

have been the case : within this wall also the men usually exercised, when it was too stormy for them to walk on shore or to a distance.

We shall now proceed to give some account of the circumstances of unparalleled difficulty and hardship attending this part of the expedition, to which the Committee advert in their report. The determination to quit Felix Harbour, as the place where they now were was called, was come to early in the beginning of 1832 ; but they were prevented, by the severity of the winter, from putting it into execution until the 29th of May, when they set off on foot for Fury Beach, a distance of about two hundred miles to the northward. In the course of this journey, they underwent very great suffering, as they had to carry their fuel, their provisions, their sick, and their tents, and specimens. The whole of this journey was over ice and snow, and occasionally on land covered with snow. The greatest want which they experienced in their toilsome progress, was that of water, as they had to dissolve the snow to obtain it when-

ever required. Although the distance in a straight line, if they could have adopted such a course, was not more than two hundred miles, still, from the devious route they were obliged to pursue, it was fully one half more than that, or upwards of three hundred miles which they had to traverse in these circumstances of danger and distress. Latterly their only beverage consisted of water and lime juice, and this it was necessary to give out rather sparingly. Their sufferings from the cold, however, exceeded every thing they had before undergone. From this every individual of the whole number composing the expedition suffered severely. When they made a stop at night, and they were not less than thirty-two days and nights travelling these three hundred miles, the only means of accommodation they possessed was a bag to sleep in. Each traveller had his own bag, which he tied tight round his neck, the whole body being covered by it: this mode was adopted to prevent the feet from getting out by any chance, an event which, had it

happened, was certain to be the forerunner to a frostbitten limb. The face also was similarly covered, and, for greater security as well as comfort, tied down to the ground.

"84. You lay close together?" asks a member of the Committee of Captain Ross, and his answer is thus given: "Yes; we dug a trench in the snow, and covered it with canvas, then covered that with snow, and then went in; the trench was enough just to contain seven people. We had three trenches, one officer went into each, and we then got into our bags and crept close together during the time we were asleep.

"85. What were you resting on?—On the frozen snow.

"86. What was the bag made of?—Generally of a double blanket: some had them lined with skin.

"87. What was the greatest degree of cold you observed during your journey?—Thirty-two below zero, which is sixty-four below the freezing point of Fahrenheit."

We can add nothing to this plain undorned statement, to show the reader, the

nature and extent of the sufferings the party must have endured.

From this journey, Captain Ross himself, in consequence of his wounds, suffered very much in constitution. He states it as his opinion, that if his men had had another hundred miles to perform, they could not have accomplished it, as they were all quite exhausted when they reached Fury Beach ; and at that time they had only one day's provision left. They did not reach Fury Beach until the first of July. During this journey the men were only served out with half-allowance, so that to the evils inflicted upon them by the climate, and the toil of daily travel, there was added the lassitude arising from a deficiency of sustenance. So badly off were they in this respect, that it was necessary to send Commander Ross, accompanied by two of the stoutest and strongest of the party, to Fury Beach, in advance considerably of their companions, in order to ascertain if the stores, or any part of them, remained in the Fury ; for had they gone there with-

out finding the provisions, the whole, or at all events the greater portion of the party must have perished. He was however successful in finding them all safe, and returning with a supply of what was so much needed, enabled the whole party to reach the Fury. A question and answer, the latter particularly, proposed to and given by Commander Ross, in reference to this critical point of the proceedings of the expedition, is so characteristic of the real nature of the dangers they had individually to encounter, that we cannot refrain from placing both before the reader.

355. "What would have been your own fate, if you had not found the Fury's stores?—I should still have subsisted on my own personal exertions; *but I would not have rendered assistance to others.*"

It was extremely fortunate, both on this occasion and on the first visit of the expedition to Fury Beach, that Commander Ross was one of those who went out, as it was to him that Captain Parry had intrusted the management of burying the Fury's pro-

visions at the period when he had been obliged to abandon her on that coast. He was therefore at once enabled to proceed to the spot, from his personal knowledge of the precise place where they had been then deposited.

On the arrival of the party here, on the 1st of August, they found that the boats belonging to the *Fury* had been washed out to sea from the positions where they had been secured at the beach; but they had been again driven in near the same place, so that they had not much difficulty in getting at them. A considerable time, however, was spent in repairing and rendering them fit for sea, as upon them now depended the main chance of ultimate escape from their desolate position. They also constructed a temporary hut here, and having made all their arrangements for again trying the sea, as complete as they could, by the 1st of July they were enabled to get out to sea.

They reached the spot where the *Fury* had been first cast on shore. The most complete narrative of the subsequent events

will be found in Captain Ross's own letter to the Lords Commissioners of the Admiralty, given in page 21, *et seq.*

Captain Ross stated, in addition to the particulars here given, in his examination, some interesting facts. The allowance of provisions at Fury Beach, when they left it on the 14th of August, in the first year they went out, he calculated, at short allowance, would make about half a year's provisions for the whole ship's company; but he adds, that they calculated that only one half of them would have got back—an anticipation which Providence fortunately rendered futile—and that then the provisions would have lasted a whole year for those who survived. In consequence of this, their fears naturally began to be excited as to failure of provisions; and this it was which impelled their homeward course, even when it was undertaken, as Captain Ross otherwise had determined upon continuing another winter at Boothia. While they were at Fury Beach the second time, on their return (for having proceeded as far

north as Leopold South Island, in latitude $73^{\circ} 56'$, and 90 degrees of west longitude, they were driven back by the want of provisions, and the prospect of a winter of great severity), the rations of provisions served were one pound a week of meat to each man ; the bread, however, which was in abundance, was not given at any fixed allowance. In the course of the journey from Sheriff Harbour, they had only half allowance. The Captain says, and all will readily believe him, that this was a period of the greatest mental anxiety to him, and that the greatest difficulty which he experienced was in preserving discipline amongst the crew.

They first reached Fury Beach in July, 1832, and in October of the same year they came back ; they were five months travelling up the coast, one month at Fury Beach, and they were trying to escape from the 1st of August, 1832, until October, in the three boats belonging to the *Fury*. Aware of the distance they were from Lancaster Sound, they knew they had no other chance

of escaping except by their boats crossing Prince Regent's Islet, and getting into Lancaster Sound. The distance from Fury Beach to Lancaster Sound, is about one hundred miles.

At this place, Mr. Thomas, the carpenter, died, the third person who ceased to live during the voyage : he fell a victim to the climate, and was the only one of those who died that did. The others died of constitutional diseases which would have been attended, in all probability, with a similar result had they remained in England.

Next year the party again quitted Fury Beach for Lancaster Sound in their boats, and were more fortunate than they had been in the attempt to escape, as they found the ice broken and the passage clear.

On the 25th of August, they crossed Navy Board Inlet, and on the following morning descried a ship in the offing ; with what feelings of delight and joy may be readily guessed at, after their trials by land and sea for the four preceding years. The discovery

of the *Isabella* was first made by Commander Ross, who however did not at once communicate the news, as he was for a while doubtful of the reality. It was one of the many remarkable coincidences of this voyage, that the ship which saved the adventurous party should have been the same which their chief commanded in his first expedition to the Arctic Seas, in 1818.

At the time the *Isabella* picked them up, three of the crew were in a state of sickness; which, according to Captain Ross's statement, but for the kind attention of Captain Humphreys, who commanded it, must have terminated fatally within the course of another week at farthest. Captain Ross is asked, (112), by a member of the Committee—

“Do you consider that if Captain Humphreys had not entered the spot where he supposed you to be, there was any probability of your remaining in that region during the whole of the year?” to which his answer is—“Not the whole of us; there must have been loss of life, if Captain Humphreys had not picked us up; those who

were sick must have died in the course of a week."

"113. The object of my question is to ascertain if there was any probability, by means of your boats, of falling in with any other whaler? — We might have done so, but it would have been with the loss of our men."

It appears also, that Captain Humphreys took the course he did, for the express purpose of looking for the party; he did so, however, it would seem rather in the expectation of finding their bones, than believing them to be alive; and in order to induce his crew—the *Isabella* was employed as a whaler—to accompany him into the part of the Arctic Sea where they discovered the expedition, he told them they were likely to meet with whales there. He had no instructions from his owners to do so, but proceeded there on his own responsibility, and was followed by another whaler, the *William Lee*, from Hull. These ships had both lingered beyond the time any of the rest did that came up in that direction.

The *Isabella* continued about a month in the whaling ground looking out for whales, after Captain Ross and his party had been taken on board. They got down on the fishing ground about a week after that event, namely on the 1st of September, and they continued the whole of that month in it. Captain Humphreys remained a considerable time after he had otherwise intended in order to enable Captain Ross to make his observations; and in doing so, must have run considerable risk. His ship encountered greater danger than usually occurs in getting out of Lancaster Sound, in consequence of being nearly beset with ice. It appears that both the *Isabella* and *William Lee* went up higher into Lancaster Sound by at least a hundred miles than any other whaler had ever done before.

While they remained in the *Isabella*, Captain Ross was enabled to complete his survey of the coast, which had up to that remained unfinished. There was a difference between him and Captain Parry, as to the longitude of the coast of the Fishery,

with reference to which Captain Ross here states :—" I have, by an actual observation, put that difference totally out of the question, and proved that the former survey I had made was correct, besides surveying several banks I had passed over in the *Isabella*, on that coast." He considers the surveys which he made in her, subsequently to this period, as more advantageous to commerce, than those which he had laid down before. He explored in her several harbours into which ships receiving damage might go in order to repair, and also the places where the whales meet to breed. The whole of this has been surveyed, and fully determined by actual difference of longitude. These discoveries have not yet been made to the Board of Admiralty, because, Captain Ross states, " it would injure his publication to do it."

The result of the surveys here made, will, when generally known, no doubt prove of inestimable benefit to the commercial interests of this country, if we are to judge of them by what we know has followed from

Captain Ross's first voyage, which may be thus briefly stated, following as closely as possible his own language. "I think," he says, "by the voyage of 1818, a very valuable fishery has been discovered by me which would not have been known unless that voyage had taken place. I surveyed that coast from the latitude of 74° to 64° , and laid down the latitudes and longitudes, correctly, giving directions for the ships. This was a distance of between 600 and 700 miles. In point of fact, previous to my exploring Baffin's Bay in 1819, the fishing ships were never accustomed to go more than about a hundred miles north of Dico Bay; and never were able to cross over to Lancaster Sound, which has now become a common track. I explored the whole of Baffin's Bay in that year, and discovered that it was possible to cross that barrier of ice that had never been even attempted before. And since that time, there has constantly been a great accession of ships from other fisheries resorting to Baffin's Bay and Lancaster Sound for fish-

ing; and certainly property in the way of fish, to the amount of nearly two millions sterling have been derived from that fishery in consequence of that discovery. In the year 1820, as many as 1,028 ships went to Greenland fishery: and during the last year only two, the remainder all going to Davis's Straits. Previously to my exploring Baffin's Bay, it was the custom for the fishing ships to return home in July and August. I stated the practicability of their waiting the months of August and September as being the best fishing months, and that has hitherto proved to be the fact*."

The *Isabella* arrived at Stromness in Orkney, the 27th of October, 1833, thirteen months after Captain Ross had abandoned his ship—thirteen months of hardship unequalled in the annals of the maritime service. The most remarkable part of the expedition is the small number of deaths which took place during the period. One of

* In 1830, more than twenty ships were lost in crossing Melville Bay, by a southerly gale; they got beset in the ice.

the seamen died in the early part of the voyage from consumption, and the second death was occasioned by mental despondency ; the third only, that of the carpenter, being in any way attributable to the effects of the climate. Captain Ross, in the summer of the year 1830, while at Victory Harbôur, had a fall and broke both his legs ; this, and some adventures with the bears, partaking strongly of the ludicrous in combination with danger, were the only mishaps which befel the party. This result might in any other case, perhaps, be attributed to accident as much as the carefulness of the head of the expedition ; but it should be borne in mind, when forming an opinion on this point, that during Captain Ross's former voyage to the same part of the world, in 1818, not a single man out of the fifty-eight of which the crew of the *Isabella* then consisted was lost, during a stay of nine months, and at a period when he must have had very little experience in the dangers of the climate, and the facilities for surmounting them. Anthony Buck, one of the crew,

also, it appears, lost his sight in consequence of an attack of epilepsy. This man was at first supposed by Captain Ross to have practised deceit, inasmuch as it was suspected he knew himself to be subject to the disease at the time when he engaged to serve in the expedition. But this was not the case, as appears from the man's own affidavit, sworn before Mr. Moorsom of Whitby, and the concurrent testimony of other persons; the Committee have recommended his case to the consideration of Government. [See the *Appendix*.]

The arrival of Captain Ross in the British Islands was immediately announced at Lloyd's, where the event, at first incredible, was hailed with great and universal satisfaction. It came with such suddenness that doubts were thrown on the authenticity of the intelligence. The arrival, however, of the traveller in Hull removed any doubt which might have existed. Captain Ross, accompanied by Commander Ross, Mr. Thom the purser, and Mr. M'Diarmid the surgeon, was received in that town with

every feeling of respect, and a public entertainment given him, at which the freedom of the borough was presented to him, with an appropriate address on the part of the corporation. He arrived in London on the 19th of October at the Portland Hotel, whence his letter to the Admiralty Commissioners is dated. Next day, Sunday, he and his nephew waited on Sir James Graham at the Admiralty, and proceeded thence to Windsor, where they had the honour of being presented to his Majesty, and spending the evening at the royal table. The whole crew had arrived in London by this time, and mustered on the ensuing Tuesday at the Admiralty.

To the importance of the results of this fortunate voyage of discovery, the House of Commons' Committee advert in their report in the following terms:—"Independently of the demonstration that the passage which had been considered by preceding navigators to be one of the most likely to lead from the Atlantic to the Pacific ocean, does not exist, thus narrowing the field for

future expeditions, if such should ever be undertaken ; independently of the addition of between six and seven hundred miles of coast to our geographical knowledge, and of the valuable addition to magnetic science and meteorology, which this expedition will supply, your committee cannot overlook the public service which is rendered to a maritime country, especially in time of peace, by deeds of daring enterprise and patient endurance of hardship, which excite the public sympathy, and enlist the general feeling in favour of maritime adventures. Of this result they have strong evidence in the national subscription which furnished the funds for the expedition of Captain Back in search of Captain Ross and his gallant party, to which the Government also contributed two thousand pounds."

When it was found that nearly four years had elapsed without any intelligence from Captain Ross or his companions, the Royal Geographical Society determined on awakening the sympathy of the public towards

the necessity of an exploratory expedition by another route in search of the missing party. A public meeting was accordingly convened, and in a short time a fund nearly sufficient raised by subscription to fit one out with this excellent object in view. Government, it is said, through the instrumentality of Mr. Under-Secretary Barrow, of the Admiralty, to whose zeal and knowledge science is so much indebted, advanced two thousand pounds to complete the required amount. The expedition to search for Captain Ross in Regent's Inlet, was intrusted to the superintendence of Captain Back, who left this country in February, 1833. [See the *Appendix*.]

It has been stated, in the early part of this narrative, that Captain Ross's own losses were heavy. On this subject he said to the Committee, that he had sustained, besides the three thousand pounds for the outfit of the expedition, in addition to what his spirited friend and patron, Mr. Felix Booth, had advanced, the loss of the

interest upon the amount of his half-pay, which had accumulated while he was away, amounting to two hundred pounds. He also states, that he might have been paid full pay by the Government, which would have amounted to three thousand pounds, at the rate of pay given to himself and Captain Parry on their former expedition in the *Isabella* and *Alexander*; this should be estimated at 600*l.* a year, the double pay of a commander. Besides this, with the actual loss of his fortune in fitting out the expedition, he raised 1000*l.* on his own property, and lost about as much more in instruments and other articles. In addition also to these actual losses, he stated to the Committee that he was himself liable to the payment of the men's wages; but his opinion of the disinterested conduct of Mr. Booth was such that he believed he would have paid it to him back, although he was not bound to do so.

On the latter point the following correspondence took place between Captain Ross and the Admiralty a few days after his return.

Copy of a letter from Captain John Ross,
R.N. to the Hon. George Elliott, C.B.

"Portland Hotel,

"22nd of October, 1833.

"SIR, The expedition from which I am now returned, having been undertaken in 1829 at my own expense, I necessarily came under certain engagements with the crew, which, according to my expectation at the time, might be likely to terminate in fifteen months, and in that case I should have been enabled to fulfil those engagements; but as the absence of the men has been protracted to four years and a half, the claims on me have greatly increased, while, by the loss of my vessel, the means of discharging them have been much diminished.

"In venturing to request you will submit my case to the Lords Commissioners of the Admiralty, I feel assured that the public nature of the undertaking, and the unparalleled sufferings which have attended it, will bring their lordships to the consideration of the circumstances I have stated, with every

disposition to afford me the means of discharging obligations of so sacred a character. It is true that according to law, the men may not be able to compel the payment of their wages after October, 1831, when all hopes of saving the vessel led to her abandonment. But from a sense of what is due to my character as an officer of the navy, and a feeling of what is due to the men, whose constancy was never shaken under the most appalling prospects, and to whose fidelity and obedience I owe so much, I should be ashamed of myself if I could for a moment entertain a thought of any subterfuge, whereby I might evade the payment of their well-earned wages. I am anxious, however, with my slender means to appeal to their lordships in the first instance, in the confident persuasion, that an undertaking so entirely of a naval nature will receive their countenance and support, and that under their lordship's recommendation, his Majesty's Government will be pleased to consider the voyage as one that the payment of the officers and men should become a public charge.

“As the men have most of them arrived in town, and wait the adjustment of their claims, I need scarcely add that it is very desirable that I should, with as little delay as possible, receive an intimation of their lordships’ decision upon the application.

“I have the honor to be, Sir,

“Your obedient Servant,

“JOHN ROSS,

“Captain of the Royal Navy.”

Copy of a letter from Mr. Barrow to
Captain John Ross, R.N.

“Admiralty,

25th of October, 1833.

“SIR, I have received and laid before my Lords Commissioners of the Admiralty, your letter, dated on board the *Isabella* of Hull, in Baffin’s Bay, in September last, and I am commanded to express their lordships’ satisfaction at the providential deliverance of yourself and companions from a perilous situation, unequalled in the records

of navigation, and their congratulations at your safe return.

“ I am, &c.

(signed,)

“ J. BARROW.”

Copy of a letter from Captain John Ross,
R.N. to Mr. Barrow.

“ 26th of October, 1833.

“ SIR, In consequence of a verbal communication with Sir Thomas Hardy, I have the honour to transmit for the consideration of the Lords Commissioners of the Admiralty, a list of the officers and men employed on the late expedition to the Arctic Seas, showing the pay due to each, on the principle that I should have felt it my duty to act upon towards them, had the discharge of those claims rested with myself, instead of being taken up by their lordships on the grounds of the public nature of the service to which the object of the expedition was directed; and I have reason to know that the officers and men will consider them-

selves fully recompensed by the proposed scale of pay.

“I trust I may be allowed this opportunity to express, for myself and for every person under my command, the deep sense we have of the kind protection so cheerfully extended to us by their lordships.

“I am, &c.

(signed)

“JOHN ROSS,

“Captain of the Royal Navy.”

Copy of a letter from Mr. Barrow to Captain John Ross, R. N., dated 28th October, 1833.

“*Admiralty,*

28th of October, 1833.

“SIR,—I have received and laid before my Lords Commissioners of the Admiralty your letter of the 28th instant, transmitting a list of the officers and men employed on your late expedition to the Arctic Seas; shewing the amount of pay due to each, according to the scale by which you would have felt

yourself bound to remunerate them for their services, and I am commanded by their lordships to acquaint you in reply, that although these men have no claim on his Majesty's Government, inasmuch as the expedition was not sent out by the Board of Admiralty, yet in consideration of its having been undertaken for the benefit of science, of the sufferings these men have undergone, the perilous situation in which they were placed for so long protracted a period, and their uniform good conduct under circumstances the most trying to which British seamen were, perhaps, ever exposed; and their lordships being moreover satisfied of your utter inability to fulfil the engagements entered into by you, and of the destitute state in which these people have providentially arrived in their native country, have been induced, under such peculiar circumstances, from a feeling of humanity, immediately to relieve you from your engagement, and them from pressing necessity, rather than wait till Parliament shall be assembled, to which it is intended

to submit the case. Their lordships have therefore directed the Accountant General of the Navy to advance to you the sum of 4,580*l.* 12*s.* 3*d.*, as the amount which, by your statement, you feel yourself under an engagement to pay to the persons therein named, from each of whom, on making their payment, you will take a stamped receipt as a voucher in full of all demands they may respectively have upon you.

“ I am, &c.,

(signed,)

“ J. BARROW.”

The recommendation of the Committee to vote Captain Ross a sum of five thousand pounds will therefore barely cover his losses, although the Admiralty have made good the liabilities which he was under to the men. The Committee say that to the importance of the considerations involved in the inquiry before them, they are happy to be enabled to report that his Majesty's Government has not been insensible, and that although Captain Ross's expedition was undertaken entirely on private grounds, and the

Board of Admiralty could not therefore be held responsible for any liabilities incurred, nor called upon in strictness to notice in any way the services of the individuals engaged in it ; yet, as far as the power of the Admiralty extended, none of these services has gone unnoticed or unrewarded. It appears also from a memorandum delivered to the Committee by the Admiralty, that " all the men have received double full pay until they finally abandoned their ship, and full pay after that until their arrival in England, amounting to the gross sum of 4,580*l.*; that they have besides been employed in eligible situations in the dock-yards, or placed in others that will lead to promotion ;" that Mr. Abernethy, the gunner, " has been promoted, and appointed to the Seringapatam ;" that Mr. Thom, purser, " has been appointed to the lucrative situation of purser of the *Canopus*, of 84 guns ;" that Mr. M'Diarmid, the medical officer of the expedition, " has been appointed assistant-surgeon of the navy, and when qualified to pass his examination, will be promoted

to the rank of surgeon ;" that Commander Ross, to whom it appears the greater part of the scientific results of the expedition are due, "has been placed on full pay, and appointed commander of the Victory for twelve months, that he may by that length of service be entitled to receive the rank of post captain, which is, by a special minute of the Admiralty, ensured to him at the expiration of that time;" and that "Captain John Humphreys, of the Isabella, to whose persevering humanity alone Captain Ross and his party under Providence in all probability owe their lives, has received that remuneration, with the expenses of bringing them home, which upon consideration has been thought proper by the Admiralty, and which the Committee state appears to them to be a reasonable compensation." In these payments it ought perhaps to have been taken into consideration, whether Commander Ross and Mr. Thom might not have had, in addition to the promotion which has been so properly and promptly conferred upon them, their pay for the

period of time they actually served with the Victory, and until they were taken up, by the Isabella.

Immediately on Captain Ross's reaching London, the Committee for managing the Arctic Land Expedition under the command of Captain Back, met to decide on the steps they should pursue, in consequence, with respect to that officer's recal. The meeting took place on the 22nd of October, Admiral Sir Charles Ogle, one of its most active members, in the chair. The following communication from Captain Ross was read at the meeting:—

“ London, October 20.

“ To the Committee for managing the Arctic Land Expedition.

“ GENTLEMEN,—Of the many circumstances of high gratification which have welcomed the delivery of myself and my companions from four years of severe suffering, there is nothing (next after a deep sense of the merciful Providence wherewith we have been surrounded in such great

perils) which has excited so strong a feeling of gratitude, as the humane and generous sympathy of a number of persons, who, at the chance of being instrumental in our preservation, contributed, with the assistance of his Majesty's government, a sum ample for the purpose of paying the expense of an expedition, which was so promptly and with so much judgment put in motion by your Committee, and so wisely confided to the guidance of Captain Back, whose known intelligence and intrepidity gave to the Committee a certainty that all would be done which a sagacious mind and unflinching perseverance could accomplish. It is my wish and duty to make the earliest acknowledgments of this instance of wide extended compassion towards us, and I venture to rely on the favour of the Committee to receive with allowance this imperfect expression of my feelings towards them, to his Majesty's government, to the contributors to the undertaking, and to the Hudson's Bay Company, for the efforts which might have proved, as designed, the means

of snatching myself and my faithful companions from the further sufferings which, almost to the last moment, we seemed doomed to encounter.

“ I have the honour to be,

“ Gentlemen,

“ Your very humble and grateful servant,

“ JOHN ROSS,

“ Captain, Royal Navy.”

To which the following answer was directed to be sent :—

“ *Arctic Land Expedition,*
21 *Regent Street, October 22.*

“ SIR, I have the honour to acknowledge the receipt of your letter of the 20th instant, addressed to the Committee for managing the Arctic Land Expedition, and returning your thanks to its members, to the Hudson's Bay Company, and all the subscribers towards the equipment of that expedition, for the exertions made by them, in hopes of rescuing you and yours from your perilous situation.

"In reply, I beg, in the name of the Committee, and of all the subscribers, to offer you our warmest congratulations on your safe return. And although the main object of Captain Back's expedition is thus attained without his assistance, yet we feel much gratified that it should have gone, inasmuch as it proves to all future adventurers, in a like cause, that their country will not be unmindful of them: while on the other hand your return also shows that no situation should be considered too desperate to be beyond the reach of a similar exertion.

"I have the honour to be, Sir,

"Your obedient servant,

"CHARLES OGLE, Chairman."

"To Captain Ross, Royal Navy."

At the same time a despatch was agreed to be forwarded by a winter express to Captain Back, acquainting him with Captain Ross's return, and directing him to turn

his attention now entirely to the second object of his mission,—completing the coast line of the north-eastern part of America, of which little more than one hundred and fifty miles remain to be traced. The reader will find in the Appendix the latest account of the expedition received in England.

On the Monday succeeding the arrival of Captain Ross in London, Mr. Barrow, the under secretary at the Admiralty, forwarded a copy of his letter to the Lords Commissioners of that board, to the secretary at Lloyd's, accompanied with the following note:—

“SIR, “*Admiralty, Oct. 22.*

“I am commanded by the Lords Commissioners of the Admiralty to transmit you the copy of a letter addressed to their secretary by Captain Ross, containing an outline of the proceedings of that gallant officer and his companions, and their providential deliverance from a situation of peril unequalled in the annals of navigation; and I am to express their lordships' wishes that a docu-

ment so honourable to the parties and to the naval service of the country may, through the committee for managing the affairs of Lloyd's, be made public.

“ I am, sir, your very humble servant,
J. BARROW.

“ Mr. Bennett, Lloyd's.”

We have seen the following copy of a letter, written to a private friend, by Captain Ross, dated (like his communication to the Lords of the Admiralty, referred to in Mr. Barrow's note, on board the *Isabella*) the 17th of September, 1833 :—

“ MY DEAR SIR,

“ I am sure you will be glad to learn that I am still ‘ numbered among the living.’ I avail myself of the opportunity of a ship bound to your hospitable island to send you these few lines. Our voyage has been most eventful and interesting ; and although it has ended in the loss of our little vessel, which we have been obliged to leave frozen up in a harbour which we discovered, we trust that,

when the important discoveries we have made, and our sufferings are taken into consideration, no one concerned will be suffered to lose on this occasion. Our endeavours have indeed been completely successful, but in a very different way from what had been anticipated. We found *land* instead of *water*, and have unquestionably proved that there is no north-west passage to the southward of 70° north, or by Prince Regent's Inlet. Our discoveries may be said to consist in the establishment of no passage to the southward of 70° , the discovery of a large inhabited tract of land between latitude 69° and 72° , and an isthmus which divides the eastern from the western sea, only five leagues in breadth ; and the discovery of the true position of the magnetic pole. We have existed on the provisions landed from the *Fury* ; and last winter lived in a *snow-house* on *Fury Beach*. On the 26th August last we were picked up by my old ship, the *Isabella*, in the *Fury's* boats. We have only lost three men. I need scarcely add, that our constitutions have had a severe

blow, but we have all wonderfully recovered since we got on board the *Isabella*, where we were most kindly received.

“ Yours, &c.

“ JOHN ROSS.”

Mr. Thomas, the carpenter, who died from the effects of the climate at Fury Beach, had been carpenter of the *Eurydice* hulk at Woolwich, when the expedition was undertaken. He was an able and intelligent man, and volunteered his services to accompany Captain Ross in this expedition. His wife then resided at Chatham, and not having heard any thing of him or his companions for the long period of their absence, concluded him dead, and went into mourning. But on the intelligence of the arrival of Captain Ross and his companions reaching her, she left home in the expectation of finding her husband at Woolwich: a confirmation of the truth of her forebodings here awaited her. In many other instances the relations and friends of those in the expedition acted on the same supposition, of

their having been lost. Captain Ross himself had, previous to his departure, raised some money for his own equipment, by executing deeds for the conditional transfer of his property, and in one instance the parties had availed themselves of their legal right to obtain payment, calculating, as they did, that he had been lost.



APPENDIX.

CAPTAIN BACK'S EXPEDITION.

WHILE this volume was going through the press, despatches were received (June 18), by the Royal Geographical Society from Captain Back, and the following extracts, containing the most interesting portions of his narrative, were published for the information of the subscribers to his expedition, and the public at large.

*"Fort Reliance, East-end of
Great Slave Lake, Dec. 7, 1833.*

"I overtook Mr. King at Cumberland House, and got him fairly off, with the two boats heavily laden with 123 packages of 90 lbs. each, by the 7th of June.

"The accounts I had received from different persons of the low state of the water in some of the rivers foreboded considerable

detention to the boats; and, other circumstances considered, it was evident to me that they could not reach the eastern end of Slave Lake before the commencement of the cold weather. Giving up all hope of seeing them again before the accomplishment of my plans, I stimulated my crew to the utmost, and actually worked them, until my arrival at Fort Chippewayan, which was about the end of July, for eighteen hours a day. On my route I met Mr. McLeod, an old acquaintance of mine, and for whom I had a letter from the resident Governor, Mr. Simpson, intimating a wish that he should accompany the expedition; and I am sure you will be happy to learn that he immediately consented to place himself under my orders, and undertake the management of the Indians at our winter quarters.

“On our reaching Fort Chippewayan, we made every inquiry relating to the direction of the rivers that debouched at or about the Fond du Lac, and though there evidently appeared to be a nearer way to the Barren Grounds than by the circuitous one originally intended to be followed, yet

the vague and unsatisfactory answers of the Indians, together with their obvious ignorance of the distance to the Great Fish River, made me at once decide to go by Great Slave Lake.

"It was the 7th of August when we landed at Fort Resolution, owing to the detentions incurred by sending to the Salt Plains (a little to the westward of the Slave River) for a winter's stock of that invaluable article.

"Many Indians had assembled at this trading post, and their principal chief, Le Grande Jeune Homme, was waiting my arrival, under a sort of promise held out to him that he should accompany me. But as I was fully aware that his services must be purchased at a greater rate than our limited means could afford, and that he knew nothing about the country to the eastward, I was glad to compromise the affair and reward him for his loss of time by a present of the value of forty beaver skins.

"The season was advancing too fast to admit of any more delay, and being unable

to procure a guide to the Thlew-ee-cho-de-zeth from among the Indians, not one of whom possessed a knowledge of its locality or direction, I determined on leaving Mr. M'Leod to bring the stores, while I preceded him in a half-sized canoe, with a crew of two 'half breeds,' a Canadian, an Indian, and an Englishman. With this motley and most rickety craft I commenced the survey towards the north-east. Our course first lay in the direction of the Rivière à Jean, and along the low swampy shores of the lake, then across to numerous islands, which led us to the north side of the lake. The scenery there was composed of the most craggy and picturesque rocks—mostly primitive, and consisting of flesh-coloured feldspar and quartz, with a few trees of inconsiderable size.

“As we advanced, the appearance became more imposing, from the circumstance of the granitic, or rather the last formation, yielding to the trap, which displayed itself in long parallel ranges of natural precipices, that not unfrequently extended to the horizon.

" In two places the southern shore approaches within a mile of the northern, and the detroits thus formed have never been known to freeze.

" More than one island had a columnar or basaltic form on the precipitous or southwest side. The water, unlike the turbid yellow we had left, was now of a transparent blue, and so cold that ice often formed during the night.

" I had now got to lat. 62 deg. 51 min. 40 sec. N., and long. 109 deg. 25 min. W., and could perceive a long blue point stretching to the S. E., which my Indian said we must round, or make a portage to get to the eastern extremity of Great Slave Lake. ' There,' continued he, ' you will find a river which (I know not what the Great Chief may do, but) we, who are born here, cannot ascend.' Upon further inquiry I found he was right, and that some time would be saved by taking a more direct course, which could only be effected by following the uncertain trending of a stream that is called ' Hoar Frost River.' On our rounding a

point, this presented itself in a cataract of seventy feet descent, and discouraging as this was, and still more so the range of mountains through which it forced its passage, we commenced the operation of transporting the canoe and baggage over hill and valley, full 1700 feet: the greatest difficulty consisted in conveying the canoe through the fallen and entangled wood. The numerous rapids in the river annoyed and delayed us; but the next day we passed the last woods, and entered a large lake in the Barren Grounds. The latitude of its southern extremity is 63 deg. 24 min. 23 sec. N., long. 108 deg. 11 min. W.; or a little to the northward of the Chesadawd Lake of Hearne, which, however, is not known by the natives.

“ In making a succession of portages from lake to lake, I crossed the same traveller's line of route, and fell on a lake of such magnitude as to be bounded on the S. by E. by the horizon. In a N.E. direction it led us to a river, which we went up, and again launched the canoe on another extensive sheet of water. We were bewildered several

times among islands and deep bays; still I kept going to the N.E., in which direction I was the more assured the river must be, from the general flatness of the surrounding land, and particularly from the north-west dip of a few sand-hills that were occasionally seen to the northward.

“ After being three days on the same lake, I encamped among some sand-hills at the bottom of a bay, and despatched the men in two parties to look for the Thlew-ee-cho-dezeth, the source of which I accidentally discovered while occupied in taking some angles from the summit of a hill.

“ On the third day the people returned, having fallen on the river at some distance from us. The canoe was immediately carried to its stream, which is narrow in some parts, and connected with a chain of small lakes by detroits and rapids. I could not forbear giving my poor voyageurs a glass of grog on this occasion, after which grateful ceremony we pursued the meanderings of the current, sometimes with ice on each bank, till the 1st of September, when my little

canoe was so shattered, the nights were so cold, the country totally destitute of wood, and the men fairly exhausted, that I could not with any degree of prudence incur further risk this season.

“The place whence I returned is in latitude 64 deg. 41 min. N., and longitude 108 deg. 12 min. W., about 115 miles E. of Fort Enterprise, and only 109 miles from the nearest part of Bathurst Inlet.

“We had been fourteen days without wood, and on the 5th of September got to the first dwarf pines, about two feet high, and on the 7th concluded the journey, by arriving at the east end of the Great Slave Lake, where I had previously directed Mr. M'Leod to commence the building of our establishment.

“The two boats under Mr. King got to us exactly a week after, and it is satisfactory to state that most of the stores, &c., were undamaged.

“Our winter house I have called ‘Fort Reliance,’ from a feeling of dependence on that Providence which will always support

us amidst every trial to which we may be exposed. It is situated on a sandy point in a deep bay, which receives two small rapid streams from the northward, and is surrounded by mountains of red micaceous granite and gneiss.

“Fort Reliance is in latitude 62 deg. 48 min. 15 sec. N., and longitude 109 deg. 10 min. W., the variation of the needle being 35 deg. 41 min. E., and considering this and the entrance of the Mackenzie River as the two extremes of Great Slave Lake, it will be found to equal Lake Michigan in length, and may therefore be considered as the second largest lake in America.

“I have a very compact observatory built, where the needle is performing its diurnal functions with more or less regularity, according to the appearance of the aurora, or other atmospheric phenomena. The dip, magnetic force, &c., have also been ascertained: nor am I conscious of having omitted anything that the friends and projectors of the scientific part of this expedition may have expected from me.”

THE following passages from the examination of Captain Ross will be read with some interest; we prefer giving them in this detached state to incorporating them with the body of our narrative, that they might not interfere with its continuousness.

SURVEY OF THE COAST OF BAFFIN'S BAY.

184.—“ In your actual survey of the western coast of the bay of Baffin, were you able to correct any material errors in the existing charts?—Oh, most certainly; particularly of two banks which I had formerly laid down, called the Alexander and Isabella banks, which had been expunged from the charts, which I originally made, by subsequent survey, but re-established by me on the same spot.

185. “ That is of importance, because the new whale fisheries are on the spot?—Yes.

186. “ What latitude is that in?—About sixty-nine.

187. “ Have you laid down any part of the north coast of Frobisher's Strait for the

first time?—Yes. We consider Frobisher's Strait to be fictitious. We laid down the coast between Resolution Island all the way to the height of seventy-four north, most of which had not been laid down before.

188. "When you say Frobisher's Strait is fictitious, do you believe there is no sea between Resolution Island and the main land?—Certainly I suppose that; but there are two Frobisher's Straits; there is one Frobisher's Strait in making Greenland an island, that I consider to be fictitious; if it is the one that makes Resolution Island an island, that is one certainly."

STEAM BOATS IN THE ARCTIC SEAS.

193. "How long were you enabled to make use of the paddle wheels of your steamer after you reached the heavy ice?—The steam-engine gave way before we reached the ice. We were run much among the ice with it, but as far as I could judge they would answer uncommonly well. They answered beyond my expectation.

193. "From your experience in navigat-

ing the Polar seas, do you think it safest to navigate those seas with a steam-boat with the paddles projecting from her side?—Far better than any other mode.

194. “Are not the paddles peculiarly subject to damage?—They were peculiarly constructed for the purpose, so that I could raise them out of the water at pleasure; one man was sufficient to disengage the paddle entirely from the engines, and raise it out of the water, and out of the way of pressure.

195. “And it was so contrived, that you conceive steam to be applicable to the propelling of vessels in the Polar seas?—Yes.”

THE NORTH-WEST PASSAGE.

196. “From your experience of these seas, do you conceive that any further attempt to discover the north-west passage would be attended with great danger?—I do.

197. “And if successful, would it be attended with any public benefit?—I believe it would be utterly useless.

198. “The indications that were relied

upon in the beginning of these voyages of discovery, as to leading to the conclusion that a passage might be found, have totally failed?—They have been totally disproved.

199. “ Does your experience lead you to make the same remark with respect to making the northern pole by the Spitzbergen sea?—I think it would be attended with danger.

200. “ But you think it is still possible?—I think that the attempt that was made at the wrong time of the year.”

HIGHEST DEGREE OF LATITUDE REACHED.

201. “ What is the greatest degree of latitude that any ship has ever reached?—Scoresby has recorded that his father reached eighty-four.

202. “ Eighty-three has been decidedly reached?—Oh, yes! Captain Parry got to 82° 45’.

209. “ What is the greatest degree of latitude that you have found natives?—In seventy-seven north.”

THE BAFFIN'S BAY WHALE FISHERY.

On this subject Captain Charles Beaufort is examined as follows :—

287. "Have you the means of knowing whether the whale fishery has been much extended by Captain Ross's first voyage?—Since the discoveries in that part of the world, the whalers have certainly gone in great numbers into Lancaster Sound, and have been very successful in finding whales there.

288. "Are you aware how far the land was correctly laid down on the west side of Baffin's Bay previous to Captain Ross's voyage in the year 1818?—It had been laid down originally by the early discoveries of Baffin, Frobisher, and others; some doubt, however, was afterwards thrown upon its correctness; but the voyages of Ross and Parry have shewn that these old navigators were more correct than had been imagined.

289. "Is it not a fact that previous to Captain Ross's first voyage, Baffin's Bay

had been omitted in the Admiralty's charts in consequence of the great doubt thrown upon the early discoveries?—I have been told so, but I never saw any chart in which it was omitted.

290. "To whom do you attribute the discovery of the whale fishery, on the west side of Baffin's Bay?—To the several voyages that have been made there, but to no one in particular.

291. "Which was the first in order?—Captain Ross's, certainly."

The amount of wages paid by the Admiralty to the men engaged in the expedition according to the rule recommended by captain Ross, was to Mr. M'Diarmid, the surgeon, 818*l.* 18*s.* 3*d.*; Alexander Brunton, first engineer, 617*l.* 15*s.*; Thomas Blanky, mate, 345*l.* 9*s.* 6*d.*; Thomas Abernethie, mate, 329*l.* 16*s.* 8*d.*; George Taylor, mate, 329*l.* 9*s.* 4*d.*; Chimham Thomas, carpenter, 296*l.* 10*s.* 8*d.* (died); William Light, steward, 172*l.* 14*s.* 8*d.*; Richard Wall, seaman, 171*l.* 16*s.*; Allan M'Innes,

second engineer, 169*l.* 18*s.* 8*d.*; Robert Shrewe, carpenter's mate, 166*l.* 9*s.* 4*d.*; Henry Ayre, cook, 165*l.* 2*s.* 8*d.*; Anthony Buck, seaman, 127*l.* 9*s.*; John Park, seaman, 126*l.* 17*s.*; Joseph Curtis, seaman, 125*l.* 17*s.*; John Wood, seaman, 125*l.* 7*s.*; Barney Lackey, landman, 121*l.* 18*s.* 8*d.*; David Wood, seaman, and George Baxter, landman, 121*l.* 11*s.* each; James Dixon, landman, 89*l.* 8*s.*; and James Marslin, armourer, 36*l.* 18*s.* 8*d.* The two last are the individuals who died on the passage, from constitutional disease.

WE shall now present the reader with a brief account of Captain Ross's opinion, as delivered before the Committee, on the subject of magnetic electricity, and some other astronomical points.

236. " Among the valuable observations of every kind which you described the voyage to have enabled you to collect, are the committee to understand that there are observations connected with magnetic electricity?—I know of no magnetic electricity; I know of no such term; but the effect of

light and heat upon it is an important discovery which we have made.

237. " With respect to observations connected with astronomy, are the committee to receive such information from yourself, or from Commander Ross?—They may receive it from either ; Commander Ross had the charge of the transit which took down the transit of the stars, and also the occultations of stars by the moon and moon-culminating stars.

238. " Can you or Commander Ross supply the committee with a series of observations connecting the gradual dip of the magnetic needle, with its perpendicular position at the point which you have assigned as the true magnetic pole?—I have them, but not in a state to set before the committee.

239. " You stated that you did not recognise such a term as magnetic electricity; do you mean to state you do not believe there is any identity or necessary connection between magnetism and electricity (electromagnetism)?—I believe they may combine

with each other, but I do not understand how electricity can be magnetised; the magnet may be electrified, but I do not know that it can.

240. "Is that opinion formed from the observations you made during your last voyage on the phenomena of electricity and magnetism?—No, there was no natural electricity present where we were.

241. "Then you made no observations with respect to electrical phenomena which you think would be important to science?—No, none whatever.

242. "With respect to the aurora borealis, it has been matter of some discussion whether the aurora borealis is accompanied with noise?—I never observed any noise with it, but I have a new theory of it which I intend to publish.

243. "Did you observe any magnetic phenomena which you consider of importance apart from the existence of the magnetic poles?—Yes, the effect of light upon the magnet, and its exposure to such climates."

The following, from the examination of Mr. Children, one of the secretaries of the Royal Society, also has reference to the same subject :—

414. “ You stated to the committee that the discovery of Commander Ross corresponded with the preconceptions of Professor Barlow ; do you apprehend that the magnetic pole is a fixed point, or moveable ?—The observations hitherto made cannot possibly be considered sufficient ; for that must require repeated observations. I know it was the opinion of Professor Barlow, two or three years ago, that there were not one or two but perhaps several magnetic poles ; the poles are probably fixed points ; but they may be moveable. Mr. Barlow has subsequently I believe given up that view.

415. “ Are we not quite at the threshold of knowledge ?—Yes, and every observation is of course valuable.

417. “ Every contribution to magnetic knowledge is of very great importance to a maritime country ?—Yes, I should think so ; very much.

417. "And worth the sacrifice of money ? Certainly ; and it is certainly something for an Englishman to have been the first and only one who has experimentally decided the true position of the north magnetic pole, which he has clearly done ; he appears to have gone to a point where the dipping needle stood directly perpendicular, where the horizontal direction was entirely lost ; that is, as Mr. Barlow expresses it, the pole itself.

418. "Did Captain Parry follow the same line ?—I do not recollect ; he cannot have been, on his voyage ; at the very spot where Commander Ross was the compass did not traverse at all ; it was perfectly upright."

THE ESQUIMAUX.

The habits and mode of livelihood of the Esquimaux have been rendered familiar to most readers by the descriptions, ample and correct, which former travellers in the regions they inhabit have given at successive periods. They pre-

sent, from their insulated position, a remarkable contrast to most other savages, their manners being, as we have already stated, remarkably mild and gentle; and among them a spirit of the most perfect contentment with their own condition is one of the remarkable features of their character. The wants of the Esquimaux, a necessary consequence of the climate in which he is found, are very few, and very readily supplied, even by such comparatively rude means as he possesses to arrive at their attainment. Contented with his own lot, as much from carelessness about himself, as from want of knowledge that others are better off, if his snow hut be sheltered from the north wind, and if he find a sufficient supply of provisions for the day, he seeks no more; his greatest affliction is the loss of his day's hunting, from the severity of the weather: and living in a state of peace with each other, their nomadic life presents none of those dangerous features which render other savages, and those in regions not very remote from where the Esquimaux

dwells, truly savage. In person they are of low stature, but stoutly and rather well made ; the complexion is of an olive tint, the face broad and round, with dark, small, and piercing eyes ; they possess excellent humour and temper, but their ignorance is gross in the extreme. They had no conception that there existed any country but their own, and such places as they had visited in their hunting excursions. The women differ little, either in appearance or dress, from the men ; the same skin of the seal or deer suffices for each, and cut and fashioned in nearly the same manner. Their gestures were very significant, and when they received small presents, they expressed their satisfaction and delight by violently jumping into the air. One of the two principal natives, Tullooachiu, when he visited the ship, had had his leg amputated ; it had been taken off below the knee in a clever manner, and he himself described the operation, as well as it could be gathered, to have been done in this manner. The upper part of the leg was bound with thongs, and

the flesh stripped from the lower part with their rude knives (which, as well as their spears, sledges, and other things, are made of whale and other fish bones, wood being entirely unknown amongst them); "the bone was then inserted in a hole in the ice, and snapped asunder, the parts seared by some lighted moss, and nature did the rest." The British sailors, during the period of his visit, made him a wooden leg, with which he seemed evidently quite delighted.

The Esquimaux, during the period of Capt. Ross's sojourn in the neighbourhood of the Victory, erected a village. The only materials they made use of in the construction of their rude temporary huts were snow and ice. The rapidity with which they erect them is quite equal to the extraordinary nature of the matter employed in their erection. They are built, furnished, and inhabited in the course of a very few hours. They are round, with an arched dome of very good formation; the window is formed of a fragment of ice, which admits sufficient

light for their purposes. The entrance is by a long narrow passage in the snow; the bed is formed of an embankment of snow in the interior, which they cover with skins. They cook their food, and the apparatus is as simple as can be well imagined, yet it satisfies all their wants. A hollowed stone, filled with whale blubber, serves both for cooking place and lamp, and the wicks are formed of moss; this gives out abundance of both light and heat for all their purposes. As may be supposed, from the primitive life they lead, they possess little or no property; their skins, their trifling cooking utensils, as just described, their spears and knives of whalebone, a sledge and dogs to convey it, comprise the whole property of the tribe, which does not much exceed a hundred souls of both sexes.



